

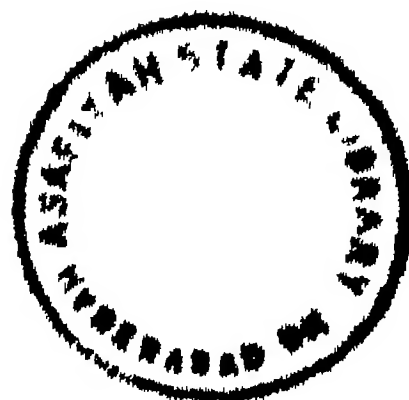
THE
OPERATIONS OF WAR
EXPLAINED AND ILLUSTRATED

THE
OPERATIONS OF WAR
EXPLAINED AND ILLUSTRATED

BY
GENERAL
SIR EDWARD BRUCE HAMLEY
K.C.B., R.C.M.G.

A NEW EDITION

BROUGHT UP TO THE LATEST REQUIREMENTS BY
MAJOR-GENERAL L. E. KIGGELL, C.B.



WILLIAM BLACKWOOD AND SONS
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MCMXIV

PREFACE TO SIXTH EDITION.

For an unknown individual to have ventured to attempt a revision of Sir Edward Hamley's great work would have been inexcusable presumption, were it not that the strategical portion of it required practically no revision, and that it was judged possible to omit the original tactical part altogether.

The principles of strategy are so constant that practically the only revision required in Parts I. to V. consisted in an amendment of a few details, relating to such matters as the movement of troops by railway. The narratives of campaigns, and the comments on them, remain practically exactly as General Hamley wrote them, excepting in a few minor points, on which recent publications have thrown new light.

Part VI. (Tactics) presented a different problem. Tactical methods are constantly undergoing modification, and to bring the original tactical chapters up to date, it would have been necessary to rewrite so much of them that they

would no longer have been a representation of General Hamley's views. For this reason it has been judged best to omit the original Part VI. altogether. In arriving at this decision, it was also taken into consideration that 'The Operations of War' was always valued more particularly for its strategical teaching; and that there is no lack of modern books of instruction—official and otherwise—on the subject of Tactics.

In the place of the original Part VI. three new chapters have been inserted, and some slight additions and alterations have been made in the original maps, which it is hoped may add a little to their value.

L. E. K.

May 1907.

PRINTED BY THE UNIVERSITY PRESS, CAMBRIDGE.

THE issue of a reprint of 'The Operations of War' having been found necessary, the opportunity has been taken to make a few minor amendments in the new chapters which were added to the Sixth Edition.

L. E. K.

October 1909.

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THE
OPERATIONS OF WAR
EXPLAINED AND ILLUSTRATED.

PART I.
THE MODERN CONDITIONS OF WAR.

CHAPTER I.

INTRODUCTORY.

No kind of history so fascinates mankind as the history of wars. No kind of record, other than sacred, appeals at once to the deep sympathies of so wide an audience. Great social, political, or philosophical enterprises may produce more extensive results than can follow from the conflict of arms; but a certain amount of acquired knowledge is necessary in order to render them intelligible. The contests of philosophy, of art, or of statesmanship, demand from the spectators some of the power which is displayed by the disputants; but everybody can watch with interest the game of war, for all can feel how earnest is the struggle where individuals stake their lives and nations their territories. Brilliant exploits, deeds of valour and of self-devotion, frequently relieve the weightier course of the narrative; and all the surrounding incidents, the pomp and circumstance, the actual conflict, the changing scenery, even the horror

Military history essentially popular,

and devastation, are so picturesque, that the gravest historian must feel how much of the interest of his work will be centred in those pages which glow with the lurid light of war.

but read
chiefly for
its romantic
interest.

Very numerous, then, are the readers, both military and civil, of military history. But many still read it as they read a romance. They read Napier when they are men as they used to read Plutarch when they were boys. They choose a side, drift with the course of the narrative, and accept the opinions of the historian. And formerly an officer who had read much in his way, and remembered it, passed for well-informed in his profession.

More scien-
tific study
demanded.

But this is no longer sufficient. The present generation has witnessed a succession of wars, vast in magnitude and in results. The inquiring spirit of the time has been impelled into military channels by the deep interest which the people have felt in contemporary conflicts. It is expected from those who now write about war, that they shall be something more than mere chroniclers; and newspaper writers and others who discuss campaigns still in progress, aim at giving us some of the philosophy of the business; while the student of military history feels that his reading can be profitable only in proportion to the means he may possess of judging of the events of the past, and deducing from them lessons for the future.

The difficul-
ties it pre-
sents.

Any one who has set thus about the study of military history seriously and honestly, will probably admit that he found himself at once involved in great perplexity. The map shows the theatre of any series of great operations to be immense. Of that vast and various complication of roads and rivers, plains and mountains, is he to take all into account? or if not, how much, and what can he venture to neglect? How reduce that seeming confusion to manageable limits? how deduce from it order and design? And in a general history of a certain epoch, such as that of Thiers, he finds that not only are events recorded, but opinions are freely given. But on what principles, he asks, are these opinions, generally dogmatic in expression, based? Why was a certain movement judicious, though unsuccessful? Why did a certain action of a certain leader show him to be a great commander? And, when historians differ, which is right?

Clearer prospects are opened to the student in military histories written

by experienced soldiers, such as the works of Napier, Jomini, and the Archduke Charles. He has here a detailed military narrative by aid of which he can follow on the map all the movements of all the troops throughout a series of campaigns; and so far he has tolerably firm footing. But he does not find the comments and scientific expositions of these historians by any means so easy to understand, for an amount of knowledge greater than he possesses seems always to be presupposed in the reader. These writers had made military science the subject of deep and protracted consideration, and formed theories about it for themselves, and they argue, perhaps unconsciously, on grounds which are, to the beginner, inaccessible. Here too, then, he is often at a loss, and feels that he must by thought and study increase his knowledge if he would thoroughly understand his author.

Anxious to acquire the requisite rudiments, the student betakes himself to elementary works. But (unless his experience is very uncommon) he will by no means find that they greatly diminish his difficulties. For their fault almost always is, that they treat their subject in too abstract a form, and become obscure in attempting to be scientific. It is common, for instance, to find military treatises affecting a mathematical precision, commencing with definitions, and illustrated with diagrams, like propositions of Euclid. Now, most military terms are easy enough to understand; and they do not require to be defined formally, because the solution of military problems does not depend on the exactitude of the definitions. Thus the subject is at the very outset uselessly encumbered—worse than uselessly indeed, for the definitions are often much more difficult to understand than the original phrase, and are therefore confusing. Everybody knows, for instance, sufficiently well what is meant by the term "Theatre of War." Is anything gained, or rather is not something lost—namely, simplicity and clearness—in defining it (as it is defined in a modern English work on strategy) as "the whole area of ground which it is necessary to take into consideration at any time during a campaign, in order to construct correctly a strategical combination"? And when in this way plain terms are transmuted into elaborate definitions, no use can be made of them. It is a method which, in exchange for a good shilling, gives you a pocketful of bad halfpence.

The fault of the diagrams is just the opposite of this. It is that they

affect too much to simplify what is in reality complicated. The student who is presented with a page of simple figures, squares, angles, or semi-circles with a few radii, and told that these are explanations of the art of war, is apt to ask if military problems can really be dealt with in this compendious fashion. He is told, perhaps, that when two strokes representing armies are placed in a certain way within two lines forming an angle, the one army has a great advantage over the other. But when he comes to apply this proposition to an actual campaign, which he follows on a map embracing extensive territories, covered with a network of roads, and diversified with innumerable accidents of ground, he finds (especially if the course of the campaign be not in unison with the principle laid down) that he is at least as much bewildered as aided by his diagram. Not that the diagram is necessarily untrue; it may state a fact (though it does not always), and the fact may be valuable; but the beginner wants the knowledge necessary to understand the fact in its very abstract form—for that form has only been attained by a process of evaporation, by knowing what matters are really superfluous, and may be left out of the complex problem which a military operation always presents. He must be already somewhat familiar with military records and military topography before he can perceive the application of the diagram, just as a deep knowledge of anatomy is necessary to him who would base a theory upon two or three bones of a skeleton. If, on the other hand, he is one of those facile disciples who accept implicitly whatever they find laid down by authority, it is evident that, in imagining he understands the art of war because he perceives the relations between sets of mathematical lines, he is in a fair way of becoming a pedant.

The earnest student is then in this dilemma, that he requires a knowledge of theory to understand the facts, and a knowledge of facts to understand the theory. The only mode of extrication would appear to be, to read military history until he can form theories for himself. But what a task is this for one to enter on who does not yet know what it is that he wants to know! When the works of single military authors extend over a dozen volumes, where shall he begin to enter on the trackless expanse before him? And it must be remembered that the reading is a small part of the labour compared with the exertion of thought necessary to perceive and generalise the significant facts. It is not to be wondered at,

then, that when no other inducement was offered to the military student than his own desire for knowledge (as was the case till within these few years), the efforts of those who wished to accomplish themselves in the records and theory of their profession were neither very numerous nor very fruitful.

In the question of what authors he shall read, the perplexities of the student have been enormously increased by the directions given to him by his guides. The task of reading all works of authority on a single military epoch is very formidable. The wars of Napoleon, for instance, are narrated by Jomini, Alison, Thiers, Gourgand, Mathieu, Dumas, Pelet, Ségur, and many others. The various accounts of the Waterloo campaign alone form a small library. And for Wellington's operations in the Peninsula, we must turn not only to the Despatches and to Napier's History, but to the biographies of Massena, Ney, and Soult, the works of Foy, Jomini, and Marmont. Still, any of these subjects might be fairly mastered in a few months. But most of the writers on war who claim to be not so much historians as instructors in the art, sweep over an horizon that includes almost the history of the world. They sketch the wars of the Greeks and Romans, or perhaps still more ancient peoples—they quote Polybius and Xenophon and Cæsar, and their modern commentators—make their way through Froissart, Machiavelli, Brantome, Sully, and proceed through the chroniclers of the wars of Louis XIV., Marlborough, Eugene, and Frederick, down to the campaigns of our own day;—leaving it to be inferred that an acquaintance with each of the epochs which were thus illustrated by the genius of great captains is equally valuable to the student who wants first, and above all, to understand something of Modern War. Now, without undervaluing ancient military history, or deeming time to be thrown away when employed in investigating wars which in old days changed the face of the world, it is evident that the facts of importance to be gathered from narratives which are often, from their remoteness, so meagre and obscure, and which relate to systems so different, are few in comparison with the time spent in endeavouring to discover them. When such copious records exist of the wars of the present century, it seems absurd to carry the reader back to times when the face of the earth was different, when armies were equipped and organised after another fashion, and when operations were conducted on methods long ago obsolete.

Method pursued in this work.

Taking our stand, then, on modern military history, let us suppose that the field were *not* trackless. Let us suppose that paths were traced on it which should all lead to a result. Let us suppose, in fact, that from amidst the mass of records certain campaigns and battles should be selected which should be *representative* operations, each involving and illustrating a principle or fact, which, when elicited and fully recognised, will serve for future guidance. Here we should have the matter at once greatly simplified; and this is what has been aimed at in the present work. The reader will be required to take no opinions on trust: certain operations will be selected, detailed, explained, and what lessons they afford deduced, till in this way a theory shall be formed on facts and experience which the student may confidently use for general application. And these comments and selections are intended to follow each other in such order that, with each step, footing may be gained for a further advance.

The subject of the First Part of this work necessarily preliminary to the study of military operations.

But before entering on an actual narrative of the operations of armies, it is necessary to know the conditions under which armies operate. We must understand the primary laws of the game before we can begin to follow its progress. Modern armies have gradually become very complex machines, and increased complexity has brought with it increased stringency of the conditions which govern their movements. The physical conditions affecting military operations are, accordingly, explained briefly in the succeeding chapters; but it must be remembered that a knowledge of these, however necessary, is still but the A B C of a military education.

Moral influences.

Napoleon considered that in war the influence of moral causes is to that of physical as three to one. It is certain that modern experience has thrown no doubt on the accuracy of this estimate. Whatever may be the weapons of the day, war remains a contest between men—a contest in which every quality of brain, heart, nerve, and muscle is tried to the utmost; and any study of war which fails to take the human factor into account can only result in false conceptions.

The advantages of organisation and discipline.

It is perhaps unnecessary to insist on the fact that organisation and discipline confer vast advantages on an armed force. In these days, when volunteers are drilling in every parish, it should be needless to tell any one that an organised body of men amenable to the laws of discipline,

accustomed to act together, mutually reliant, trained to perform in unison the movements best suited to the march and the battle, and directed absolutely at the will of a practised commander, is an engine of war vastly more formidable than any assemblage of individuals, however numerous and however skilled in the use of their weapons, but in whom this concerted action is wanting. It is true that, in particular circumstances, in rugged mountains or in pathless forests, untrained warriors may meet disciplined troops on favourable terms. But in all countries which admit of the movements of great bodies, a regular army is immeasurably superior to an armed population. In the tangled wildernesses of New Zealand, the Maori possibly counts for as much as the soldier. But on the plains of India, the compact, small, disciplined force advancing on the native hosts easily loosens and dissipates the vast array. In the sierras of Spain the guerillas often held at bay the seasoned warriors of Napoleon. But in open battle the half-disciplined levies of Spaniards, individually not less brave and strong than their adversaries, were scattered almost invariably before the onset of the steady troops of France. Finally, the fate of the enormous levies raised from the French population in 1870-71, after the destruction of the regular armies, has convinced all who needed convincing, how more than ever futile is the attempt to meet discipline with mere numbers.

Discipline, in fact, is a union of very different qualities, each of which is an important element in war. It means cohesion of the units and suppleness of the mass—it means increased firmness and increased flexibility—it means the most efficient combination of many and various parts for a common end. “A hundred thousand soldiers,” says Macaulay, “well disciplined and commanded, will keep down ten millions of ploughmen and artisans. A few regiments of household troops are sufficient to overawe all the discontented spirits of a large capital.”

Fundamentally important as it is, however, discipline is but one among the many moral qualities which influence armies. These have been discussed by many writers, notably Clausewitz, and it is not proposed to enter deeply into them here. But the student who desires to ascertain the mainsprings of success in war must look deeper than physical causes. No great deeds have ever been performed by an army in which the qualities of courage and steadfast endurance were wanting. No

Discipline is but one among many moral qualities necessary to success.

commander has ever risen to fame who has not displayed great energy, perseverance, and resolution. No nation has ever become great without fostering such qualities in its sons, nor has any remained great which ceased to foster them.

The influence of moral qualities is not confined to the battlefield.

It is on the battlefield, doubtless, that moral qualities are most severely tested, but they exert great influence on strategy also. The main object of all strategical movements and combinations is to bring superior force to bear at a decisive point and time. The selection of the point and time is a problem for the superior commanders; and the different ways in which this problem may be solved are discussed in the following pages. But, after the decisive point has been determined, the difficulty of concentrating there *in time* has still to be overcome; and, since the enemy will be endeavouring to attain the same object, the movements of the opposing armies tend to culminate in a race to the battlefield. The results of this race depend on many factors. The advantages of a "good start" may be gained by thorough preparation in peace; by wise preliminary dispositions; by sound judgment, and by determination in acting promptly and vigorously on the judgment formed. But all this may not suffice unless the army itself be capable of enduring long and rapid marches and the hardships entailed thereby. This capacity to endure depends even more on moral than on physical qualities. Moreover, in considering possible solutions of strategical problems, the influence of the estimated relative tactical value of the opposing armies is a most important factor,—a general who is confident of defeating the enemy when he meets him may safely venture on manœuvres which it would be madness to attempt against a superior adversary; and in estimating relative fighting value the moral factor counts for much.

In order, then, to grasp fully the lessons of the following pages the student must bear constantly in mind the influence of *moral*, both on the conception and on the success of strategical operations.

CHAPTER II.

THE NECESSITY OF A SECURE STARTING-POINT.

THE advantages of organisation and discipline are great, but they have not been obtained except under strict conditions. In saying we have a powerful engine in a disciplined army, it must be admitted also that its operations are restricted by certain laws, and these laws were less stringent when armies were less organised—perhaps, indeed, in proportion to their degree of organisation. In the wars of the middle ages, no great amount of preparation was demanded for a military expedition. Feudal chiefs summoned their retainers to the field from the farm or the workshop. Peasants and citizens, trained by frequent conflict in the use of their weapons, took up the bow or the pike and became at once soldiers. An invading army composed of such materials descended on the enemy's territory like a swarm of locusts, spreading itself to pillage, to devastate, and to subsist. For a special purpose, to meet the enemy, or to attack a town, it could assemble, living on the spoils it had collected; but the necessity of procuring fresh supplies would soon force it to spread again. This, however, it could safely do, so long as the enemy was under the same necessities as itself. Had it been opposed to a force that was always ready to move, and to fight in compact order, it would, in its scattered condition, have fallen an easy prey. But in those days the existence of such a force was impossible. The most powerful feudal sovereign could only make war with the aid of people of consideration and their retainers. The revenues of the Crown would have been insufficient in any country for the maintenance of great standing armies. The taxation of the people for the constant supply of troops was impracticable under the feudal

Military system of the feudal period

system. In those days, then, the invader counted on living at the cost of the invaded territory; the defender was often of necessity driven to do likewise, and the unhappy district that was the scene of operations suffered from friend as well as foe.

Froissart's
account of the
military expe-
ditions of his
age.

The army of a feudal sovereign, then, whenever it advanced even one or two marches from the city or district in which it had been quartered, and was forced by the proximity of the enemy to keep together, was sure to be straitened for supplies. In Edward III.'s first expedition against the Scots, advancing from his rendezvous, Durham, he crossed the Tyne to seek the enemy. He was then between Newcastle and Carlisle, and only a few hours' journey from either town; yet his army fell at once into distress. Messengers were sent, as Froissart tells us, to Newcastle to make proclamation in the King's name, "that whoever wished to get money, he had only to bring provisions, wine, &c., for which he should be instantly paid, and a safe-conduct granted him. . . . The next day, the messengers which the lords had sent for provisions returned about noon with what they had been able to procure for them and their households; but it was not much; and with them came people of the country, to take advantage of the situation of the army, and brought with them on mules and small horses, bread badly baked, in baskets, and poor thin wine, in large barrels, and other kind of provision to sell, with which the army was tolerably refreshed, and their discontent appeased. . . . Thus they had remained for three days and three nights without bread, wine, candle, oats, or any other forage; and they were afterwards for four days obliged to buy badly-baked bread, at the price of sixpence the loaf, which was not worth more than a penny, and a gallon of wine for six groats, scarcely worth sixpence. Hunger, however, was still felt in the camp, notwithstanding this supply; and frequent quarrels happened from their tearing the meat out of each other's hands." Hearing tidings of the enemy, they then quitted their first camp, and moved to the foot of a hill twenty miles off where the Scottish army was posted. "The intention of the English lords," says the chronicle, "was to keep the Scots besieged there; for, as they could not well fight with them, they hoped to starve them. They knew from the prisoners that they had neither bread, wine, salt, nor other provisions, except cattle, which they had seized in the country. Of these they might eat indeed without

bread, which would not be very palatable." Finally, the Scots decamped, by which time the English were in such a plight that, instead of pursuing, they turned homeward the same day. They halted, we are told, in "a beautiful meadow, where there was plenty of forage for their horses; and much need was there of it, for they were so weakened by famine that they could scarce move."

When the Black Prince made the incursion into France which ended with the victory of Poitiers, his troops subsisted on the pillage of the country. "They found the province of Auvergne, which they had entered and overrun, very rich, and all things in great abundance; but they would not stop there, as they were desirous of combating their enemies. They burnt and destroyed all the countries they passed through; and when they entered any town which was well provisioned, they rested there some days to refresh themselves, and at their departure destroyed what remained, staving the heads of wine-casks that were full, burning the wheat and oats, so that their enemies should not save anything. They kept advancing and found plenty everywhere, for the countries of Berry, Poitou, Touraine, and Maine are very rich, and full of forage for men-at-arms." Froiss

In such a country, such a system was practicable enough so long as the army acting on it was undisturbed in its depredations by a formidable force. At Issodun, which they took by storm, the Prince's army "found great plenty of wines and other provisions, and remained three days to repose themselves." But "news was brought there to the Prince of Wales, that the King of France was in the city of Chartres with a very large army, and that all the passes and towns on that side of the Loire were secured, and so well guarded that none could cross the river. The Prince then held a council, when it was resolved he should set out on his return to Bordeaux, whence he had come, through Touraine and Poitou, and destroy all the country as he passed." Accordingly he marched back, devastating as he went; and the French army, crossing the Loire at many points, followed hard upon his track. "The Prince of Wales and his army," says Froissart, "were ignorant of the exact motions of the French; but they supposed they were not far distant, for their foragers found great difficulties in procuring forage, of which the whole army was in extreme want. They repented of the great waste they had made in Berry, Anjou,

and Touraine, and that they had not more amply provisioned themselves." It is clear that the Prince had no magazines, but was dependent on the country he marched through: and as soon as the pressure of the enemy drove his army together, it could no longer find means of subsistence.

When the same Prince took part with Don Pedro, the exiled King of Castile, and set out from Bordeaux to aid him, he passed with his army through the territories of the King of Navarre. This sovereign was friendly to the Prince of Wales and Don Pedro, yet the troops pillaged his country. On entering Castile and coming near the enemy, we find "the Prince and his brother were in great want of provisions for themselves and their horses, as they had entered a very barren country. A loaf of bread—and of no great size—was sold in the Prince's army for a florin, and many were very eager to pay this price wherever they were able to get it." Then crossing the Ebro "they found there a richer country than that which they had left; but even here they were much distressed for provisions."

This improvident and barbarous system of warfare is not to be attributed altogether to the difficulties of transport in times when both roads and vehicles were of very rude construction. In one of Edward III.'s great invasions of France, his march was followed by a train of six thousand waggons, "stretching," says Froissart, "upwards of two leagues, and laden with tents, pavilions, mills and forges to grind their corn and make shoes for their horses, and everything of that sort which might be wanting." But we are presently informed why this unusual provision was made. "The country had been so pillaged and destroyed, that the ground had not been cultivated for the last three years; and there was such distress and famine in the kingdom of France, that (if corn and oats had not been sent from Hainault and the Cambresis into Artois) Vermandois, the bishopric of Laon, and Rheims, must have perished with hunger. It was upon this account that the King, who had been informed of the poverty and distress in France, had made such ample provision before he quitted England. Each lord had done the same according to his rank, except in the articles of straw and oats, and for that they did with their horses as well as they could." The King's baggage-train was intended to supply his army while passing through the desert which war had created. On reaching a more productive region "his people

overran the country to the right and left, and took provisions wherever they could lay hands on them." Arriving at Rheims, the capture of which city was the primary object of the expedition, he besieged it for seven weeks, when "he began to tire; and as his army found great difficulties in obtaining forage and provisions, their horses perished. He broke up his camp and marched off towards Chalons."

The picture presented by the armies of the feudal period, is that of an assemblage of knights, barons, and squires, with their retainers, all vassals or auxiliaries of the belligerent powers, who made the quarrels of kings the pretext for enriching themselves by plunder. While moving in the enemy's territory they occupied a great extent of it, pillaging villages and farms, sacking cities, and ransoming captives of consideration. Leaders were esteemed according to their inventiveness and skill in making sudden incursions, in attacking castles, devising stratagems, and drawing up their motley forces in order of battle before charging into the *mêlée* at their head. If a rich town, or district affording abundant supplies, were within reach, and unprotected, these were sufficient reasons for leading the army thither. The idea of a highly-organised force, making many long marches in succession, with the utmost rapidity, towards certain points, holding itself always prepared for immediate battle, and aiming to bring the adversary to terms, not by ravaging his territories, but by defeating his armies, and manœuvring, wherever possible, against his communications as his most vital points, could not possibly enter the mind of a sovereign or leader of those days, since the first condition of such a mode of warfare was wanting. The collection of all kind of stores and munitions necessary to an army, and the incessant forwarding of these to great distances throughout a long campaign, was a task beyond the resources of the wealthiest feudal monarch. All he could do was to raise, by mortgaging royal revenues or territories, by loans, or by such exactions as his subjects could be induced to submit to, the sums necessary to assemble the army and set it in motion, after which the war was left to maintain itself.

The manner
in which feu-
dal armies
made war.

But in the incessant wars of the middle ages it happened that the power of the nobility which used to stand between king and people became extinct in some of the great kingdoms of Europe. In others the sovereign had gradually acquired such large territories as placed him

Change in the
military sys-
tem produced
by the aug-
mentation of

the power of the sovereign, and the consequent formation of standing armies.

beyond the reach of the most powerful coalition of nobles. In either case the power of the Crown became absolute; and the monarch, thus able to tax the people at his will for the payment of troops, proceeded to environ his throne with a standing army—a body of men apart from the general population, trained to act in concert, to operate by system, animated by a military spirit, and looking to the Crown as the source of reward, of honour, and of advancement. And the competition, in warlike efficiency, that of necessity exists between rival States, would have hastened the steps by which the present condition of armies has been reached, had not the surrounding circumstances opposed limits to their progress. In earlier times the population was sparse, the infertile tracts of land frequent, the roads few and bad, while the artillery and trains which accompanied the march would have been cumbrous and difficult of transport even had the ways been good. Thus many conditions were still wanting to the development of the science of strategy.

Further changes which civilisation caused in the system of war.

But, in course of time, the change in the features of a country consequent on the advance of civilisation affected the conditions of war. At all periods the population of districts forming the frontiers of bellicose neighbours had been accustomed to seek shelter from the first rush of an invasion in the great towns, which were fortified to resist an attack. So long as artillery was ineffective and difficult of transport, a strong wall was sufficient for defence; but as roads improved with increasing commerce, and a formidable artillery was enabled to accompany an army, the art of fortification grew in importance. Great engineers appeared, who turned cities into huge fortresses; and as these strongholds were certain to be at a meeting of great roads, they became obstacles in the way of an invader that he could not neglect. They were very different from the castles of ancient barons, which, though they might be strong for defence by reason of their position, yet were for that very reason less useful as obstacles to an enemy's progress, since the loftier the hill on which they were perched, the less likely was it that they should command a great road. They differed also from the walled towns of the middle ages, inasmuch as they were calculated to resist for a long siege improved artillery. These fortresses sprang up all over Europe. The richer and more populous the territory, and the more industrious the inhabit-

ants, the more numerous were the towns and the greater the necessity for fortifying them. From the opposite banks of the Rhine great fortresses watched each other, and on the open frontier of France and Belgium they were thickly set. An advancing army dependent on its communications could neither pass by one of these obstacles nor easily take it. Therefore, in the wars of Louis XIV., whole armies were for months occupied in besieging towns, and Marlborough's battles bear but a small proportion to the number of his sieges. Territories were thus captured and recaptured bit by bit; and the conquest of a province, a country, even of a town, was sufficient object and end for a campaign, and great battles were often fought to cover or to raise a siege. It was not, then, because the leaders of those days were less active and enterprising than their successors, but because they fought under different conditions that their actions were less striking and decisive.

However, though military movements were still slow, in the composition of the armies of that time we see a great change from the feudal period. Officers and men alike were the servants, not the auxiliaries, of their respective governments, and an army was an integer and not an aggregate. As the military machine grew more manageable and the means of supplying it improved with increasing wealth and population, enterprises became more extensive and operations more systematic. It was discovered that it was more profitable to occupy an enemy's territory than to devastate and plunder it, and that the readiest way to bring him to terms was to beat his armies. Improved roads and vehicles enabled large bodies to move more freely—improved cultivation gave them more abundant means of subsistence. Fortresses were watched, or "masked," by detachments; and Frederick and Napoleon, preferring manœuvres in which they were confident of their skill, to the tedious process of sieges, moved deep into the heart of the theatre of war.

Change in the composition of armies.

As the power of an army on a distant enterprise depended on its united and concerted action, it was necessary to its full efficiency that it should be able to assemble at any time. It must therefore be accompanied by everything requisite for its maintenance. Food, ammunition,

Consequent elaboration of the system of supply.

clothing, medicine, and recruits, must find free access to it; and the stream of these supplies must be unceasing. The first preparation for war was the establishment of great depots and magazines, and these were collected in places that were secured from the enemy's attacks, either by natural defences or artificial fortifications. Frontier lines, strengthened for the defence of countries from the aggressions of their neighbours, of course afforded the most favourable points for the establishment of the magazines destined to supply an army of invasion. Thus, if France were at war with Germany, the Rhine offered a natural screen, behind which might be collected the necessary stores; and when this barrier was further strengthened by a line of fortresses, a French army in Germany could operate in full confidence that the supplies necessary for its maintenance were safe, and that, if compelled to retreat, it would find amidst the fortified depots both subsistence and protection from disaster. Or, again, if Italy were to be the scene of French operations, behind the barrier of the Alps must be collected the vast stores on which the army would rely.

It would be of great importance to the military student to know for certain what particular points the generals on each side relied on for their supplies at all the stages of a campaign. But on this matter history is too often silent, and silent of necessity. For it is generally politic, if not imperative, to collect and deposit these supplies in secrecy, otherwise they would indicate the direction of an intended operation; and though the papers frequently brought to light at the conclusion of a war may reveal the sources of supply, yet such details, which would possess no interest for readers in general, will always be disregarded by the historian, who desires to render his pages splendid and attractive with the description of marches and battles. Hence such records, if they exist, are generally unattainable by contemporary writers, and of too little value to those who come after to ensure their preservation. But a costly work has been published in France containing amplest details of the campaigns of 1859 in Italy; and a few particulars gathered from its pages will show what enormous preparation is indispensable for the movements of modern armies.

Campagne de
l'Empereur
Napoléon III.
en Italie, rédi-
gée au Dépôt
de la Guerre,
d'après les
documents
officiels, &c.

Extract from
a review of

"On the 1st January 1859, France could produce in arms, without any effort more than usual, 640,000 men; a numerical establishment which,

besides furnishing troops for home service and for Algeria, maintained the army of Italy from the time of the battle of Magenta to the time of the battle of Solferino, at the force of about 130,000 men. Of these about 10,000 were cavalry; and the force of field-artillery was, at various epochs, from 312 to 400 guns.

the above in
'Blackwood'
by the author

"These guns, nearly all rifled, carried with them ammunition for a great battle. Every corps of the army was accompanied by 110 carriages, containing a second supply of ammunition for artillery and infantry. Finally, a grand park of 430 carriages, organised at Lyons, carried fresh supplies to St Jean de Maurienne, from whence artillery-horses drew them over the Mount Cenis to Susa.

"The arsenals in France were in full operation, converting the old Napoleon field-gun into a rifled weapon. The whole army was supplied with rifled muskets. Besides the field-artillery, 200 guns and 70 mortars were provided for the siege of the Italian fortresses, each supplied, on the average, with 900 rounds of ammunition.

"Tents were provided to contain nearly a million of men—almost enough to house the population of Paris, and covering an area much greater than the city

"For the necessary supplies of forage and grain the French markets were exhausted, and the vast total was completed by purchases in other countries. The civil bakeries of France were charged with the supply of the troops in the interior, and the Government establishments were thus free to devote all their resources to providing bread for the army of Italy, and to amassing reserves for its future subsistence. But these conversions could not take place in a moment; and to give time for the organisation of supplies, provisions for 100,000 men and 10,000 horses, for twenty days, were collected at various towns in Piedmont.

"Thus far, then, the French soldiery might survey with great satisfaction the enormous provision made for its comfort and efficiency. But there is another set of items in the account, very interesting and significant, though by no means equally cheering to contemplate. For instance, 363,000 kilogrammes of lint were provided, being 10,000 dressings a-day for more than three months. About 1000 cases of surgical instruments also figure grimly in the list. Every battalion was followed by a mule bearing surgical instruments and dressings for 200 wounded. Every divi-

sion, besides instruments, was provided with 2000 dressings. 'In view of ulterior wants,' we are told there was a reserve of lint and bandages representing 2,800,000 dressings. The medical arrangements comprised everything necessary for 15000, sick for three months. Beside the field-hospitals which first received the wounded and diseased, military and civil establishments were organised in the interior of France, to relieve the army of such encumbrances by accommodating 17,000 patients. Such are some of the colours used in painting the gloomier pictures that hang in the temple of Fame, where the bright eye of glory is covered with a patch, and where the exulting tread of conquest is exchanged for a painful hobble upon wooden legs.

"At risk of being tedious, we have given some of these details, because for want of them readers of military operations are often insensible to the vast preparations required for the commencement of war between great Powers, and to the nature of certain facts which must enter into military calculations, and which, though they seldom appear on the surface of history, form the great elements of perplexity for governments and generals. Sending forth an army is like sending forth a city equal to the capital of a great state, transporting it, with all its means of food and shelter, from place to place at uncertain times and in unforeseen directions, and leaving it all the time entirely dependent on the territory from which it set forth for the maintenance of its numbers and the supply of its daily wants."

The Duke of Wellington's correspondence after the battle of Talavera sets in the strongest possible light the essential importance of magazines, and the consequences of operating without them. The English army, leaving its depots in Portugal, had moved into the valley of the Tagus to co-operate with the Spanish forces which were opposing the French corps in front of Madrid. The junction of the allies effected, they had engaged and beaten the enemy at Talavera. As the commander of an auxiliary force, acting in conjunction with a native army, in a country which, though sterile in parts, yet afforded ample supplies, Wellington could not have anticipated any difficulty in procuring provisions, for which full value would have been readily paid; and he had accordingly entered Spain relying on the promises of the Spanish Government to provide ample subsistence and means of transport for his army. Yet, victorious as he was, he speedily found that army crippled for want of food and

forage; and, after numerous remonstrances, he was driven to execute what he had frequently threatened, and marched his troops back to Portugal.

"A starving army," he says to his brother, in narrating the privations of his troops, "is actually worse than none. The soldiers lose their discipline and spirit. They plunder even in the presence of their officers. The officers are discontented, and are almost as bad as the men; and with the army which a fortnight ago beat double their numbers, I should now hesitate to meet a French corps of half their strength."

'Wellington's Despatches' (1809) on the necessity of a system of supply.

"To carry on the contest with France to any good purpose, the labour and services of every man and of every beast in the country should be employed in support of the armies; and these should be so classed and arranged as not only to secure obedience to the orders of the Government, but regularity and efficiency in the performance of the services required from them. Magazines might then with ease be formed and transported wherever circumstances might require that armies should be stationed.

"But as we are now situated, 50,000 men are collected upon a spot which cannot afford subsistence for 10,000 men, and there are no means of sending to a distance to make good the deficiency."

Again he says: "If we had had 60,000 men (British) instead of 20,000, in all probability we should not have got to Talavera to fight the battle, for want of means and provisions. But, if we had got to Talavera, we could not have gone further, and the armies would probably have separated for want of means of subsistence, probably without a battle; but certainly afterwards."

And, lamenting the opportunities thus lost, he tells Lord Castlereagh: "If we could have fed, and have got up the condition of our horses, we might probably after some time have struck a brilliant blow upon Soult, at Placencia, or upon Mortier in the centre." "I have no motive," he says to a Spanish minister, "for withdrawing the British army from Spain, whether of a political or military nature, excepting that which I have stated to you in conversation—namely, a desire to relieve it from the privations of food, which it has suffered since the 22nd of last month; privations which have reduced its strength, have destroyed the health of the soldiers, and have rendered the army comparatively inefficient."

Many preceding passages of this chapter will show that the march of Sherman across Georgia in 1864 is neither a novelty in war nor a

Sherman's march in

Georgia not
exceptional,

refutation of what has been said respecting the necessity of a secure base. Like the Black Prince, he marched through the unprotected country of an enemy, whom he sought to injure by ravaging the district which he traversed; and like Edward III. he carried with him a great train of supplies, not because the territory did not afford them, but because the appearance of a hostile force, or of a formidable obstacle of any kind, might, by obliging him to assemble his army, deprive him for a time of the power of subsisting by plunder. But the object and duration of the movement were definite and limited. A certain extent of country was to be traversed with the calculated certainty of reopening communications beyond. There is evidently nothing in the operation which can modify existing theories, for it remains as impracticable as before to explain or to conceive how sustained operations can be conducted in the face of an enemy without a secure starting-point.

Supply
requirements
are increased
under modern
conditions.

Recent developments have tended to increase the quantity and weight of supplies required by modern armies. The introduction of quick-firing guns and rifles has caused a greatly increased expenditure of ammunition, while the use of heavy artillery with field armies has added further to the weight of the ammunition supply required. Moreover it is now recognised that health, and consequent efficiency, demand and repay a more liberal supply of food and clothing, and better arrangements for the treatment of sick and wounded, than was often considered necessary in former days.

CHAPTER III.

THE INFLUENCE OF ROADS AND RAILWAYS ON THE
OPERATIONS OF A MODERN ARMY.

THE fortified line of magazines constituting the base being formed, it is indispensable to a sustained and dubious enterprise that good means of communication should exist between the magazines and the army as it moves away from its base. In mountainous districts where the roads are so rugged and steep as to be unfit for wheeled vehicles, the necessary supplies must be carried on pack-horses or mules. But the quantity which an animal can draw is so much greater than that which it can carry, that the number of animals and the extent of road they occupy must be immensely increased. It is therefore very difficult, almost impossible, to supply a very large army, under such circumstances, for a long campaign; and roads practicable for carriages are indispensable to all operations, except those which aim at attaining their results in a brief and definite time. And not only should the roads be good in the ordinary sense, but they should be great main arteries of the region, solidly constructed. Anybody who lives in the neighbourhood of a newly-established brick-field, will see how quickly the parish roads are broken and wrought into hollows by the passage of the heavy brick-carts. The trains that follow an army, laden as they are with ammunition, pontoons, platforms for guns, siege-artillery, and other ponderous materials, soon destroy all but the best roads. In order, then, that the enormous streams of supply may be uninterrupted, it is necessary that the roads should be of the best construction, like our own highways and the great paved *chaussées* of the Continent. The proof of this is found in the difficulties under which armies begin to labour directly they are thrown on bad roads for their supplies. Our own experience in the Crimea shows that even

Carriage-roads indispensable to sustained operations.

McClellan's
Report on dif-
ficulties from
bad roads.

seven miles of soft soil interposed in winter between an army and its depots, may be almost a fatal obstacle; and General McClellan, in his Report of his campaign in the Yorktown Peninsula, tells us—"On the 15th and 16th the divisions of Franklin, Smith, and Porter were with great difficulty moved to Whitehouse, five miles in advance; so bad was the road that the train of one of these divisions required thirty-six hours to pass over this short distance." And again, speaking of the movement from the York River to Williamsburg, he says—"The supply-trains had been forced out of the roads on the 4th and 5th to allow the troops and artillery to pass to the front, and the roads were now in such a state after thirty-six hours' continuous rain, that it was almost impossible to pass even empty waggons over them."

See Map
No. 9.

But it is not only on account of the supplies that great armies operate by great roads. It is also because the march of the troops and artillery becomes on bad roads so slow and uncertain that all the calculations on which a general bases a combined operation are liable to be falsified, and the rapidity necessary for a movement intended to surprise or foil an adversary is lost, so that the design is foreseen and frustrated by the enemy. An example of the different rate at which troops move over a good and a bad road is afforded by the campaign of Waterloo. Napoleon following Wellington, and Grouchy following Blucher, both quitted the field of Ligny on the afternoon of the 17th June. The Emperor, marching by the great paved *chaussées* of Namur and of Brussels, assembled his army that night in the position of Waterloo, seventeen miles from Ligny. Grouchy, moving by country roads, had great difficulty in bringing his 30,000 men to Gembloux, five miles from Ligny, by ten o'clock the same night. And, to quote a more modern instance, General McClellan says: "On the 14th of March, a reconnaissance of a large body of cavalry with some infantry, under command of General Stoneman, was sent along the Orange and Alexandria Railroad to determine the position of the enemy, and, if possible, force his rear across the Rappahannock; but the roads were in such condition that, finding it impossible to subsist his men, General Stoneman was forced to return."

See Map
No. 8.

Operations of
brief duration
may be accom-
plished by in-
ferior roads.

While, however, impressing on the reader the absolute necessity of good roads for the sustained operations of a campaign, it is not asserted that considerable bodies of troops never move by indifferent roads. Many instances of the contrary would appear in a short course of mili-

tary reading. Thus, Napoleon carried 40,000 men from Switzerland to Italy over the St Bernard; but this was for the sake of obtaining by surprise an advantage of position over the Austrians, and, that position attained, he had the great roads of Italy for his future movements, and the territory between the Alps and Po, friendly to him and hostile to the Austrians, was available for supplies. Again, Wellington, following the French in 1813 on the great road of Valladolid and Burgos, quitted it to throw his army across difficult mountain-paths; but he did so for the purpose of shifting his base from Portugal to the northern ports of Spain, with which he presently opened new communications. And McClellan, crossing the Potomac after Lee, subsequent to the battle of Antietam, moved by the road from Harper's Ferry along the foot of the Blue Ridge, which is probably hilly and broken; but as soon as he reached the Manassas Railway he came into direct communication by that railway with Washington. Thus each of these movements was of brief duration, and made with the definite object of immediately attaining a new and more convenient communication with the depots of supply.

See Map
No. 5.

See Map
No. 11.

See Map
No. 8.

The introduction of railways and the vast increase in their number and carrying capacity has caused considerable modification in the conditions under which armies are now moved and supplied; so much so that, where they exist, railways have become one of the governing factors in strategy, and the construction of "strategical lines" is now a feature of the necessary preparation for war in the case of nations whose frontiers are liable to sudden invasion. Prussia was the first nation to realise this fully, and, in 1866 and 1870, von Moltke's plans of campaign were based to a considerable extent on a careful estimate of relative railway facilities, not only as affecting the Prussian concentration but as governing the areas, as well as the time, within which the hostile armies could assemble.

Influence of
railways.

When war breaks out the first use to which railways are put is in assembling the forces and concentrating them within reach of the theatre of operations. Napoleon had to rely on rapid marching to gain strategical advantages at the outset of his campaigns; to-day similar advantages are sought for in railway development and organisation. During the concentration of the armies, and after its completion, vast quantities of supplies, ammunition, and other stores must be brought within reach

Various uses
of railways
in war.

of them by rail. Even under favourable conditions it would be almost impossible to forward by road transport alone all that is required by the huge armies which the Great Powers can now put into the field. Besides their uses in assembling and supplying the armies, railways are of great assistance in relieving them of sick, wounded, and prisoners, and in sending forward reinforcements.

Movement of
troops by
railway, time
required.

The time required to move masses of troops by rail depends on many conditions. First the necessary rolling stock has to be collected. Then the rate of despatch of trains depends, firstly, on the conveniences existing at the departure stations; the entraining of men is a simple matter, but with the men have to be sent loaded carts and waggons, besides guns, horses, and other material. Then the carrying capacity and the speed of each train depend on such matters as gauge, gradients, and engine power. The number of trains that can be run in a given time varies according to whether the line is single or double; according to the distance between sidings or signals; the rate at which trains can be received and unloaded at arrival stations; the necessary amount of civil traffic and similar considerations. The difficulty of marshalling large quantities of rolling stock at arrival and departure stations must be considered, and it must be remembered that even if the supply of rolling stock is ample the number of skilled men available to handle it will usually be limited, and they cannot work continuously. Even the locomotives are, ordinarily, only expected to run for 18 hours out of 24.

Rate of
despatch by
trains.

During the recent war in Manchuria the Russians were, at first, only able to despatch 4 trains a-day on the Siberian railway, although they considerably increased that rate subsequently. On the Continent the capacity of a good single line is estimated at 30 trains a-day; of a double line at from 60 to 68 trains. For rough calculations, for continuous working, about 2 trains an hour from a suitable station on a good double line is as much as it is usually safe to calculate on, allowing for some civil traffic. On inferior lines nothing approaching that rate could be reached.

Proportion of
railway trans-
port to troops.

On an ordinary English railway, with baggage, supply, and ammunition waggons, a battalion of infantry fills 2 trains; a battery of artillery 2 trains; a cavalry regiment 5 trains. Larger formations, accompanied by supply columns, supply and ammunition parks, quantities of engineer

equipment, &c., require accommodation far in excess of what is necessary to convey the fighting troops. Thus a division, with a fighting strength of 8 battalions, 6 batteries, and 1 squadron, requires 48 trains. An army corps consisting of three such divisions, with a due proportion of extra cavalry and artillery, requires over 200 trains.¹ On narrow-gauge lines, or over steep gradients, the size of trains would be reduced, and their number correspondingly increased. In England the average pace of troop trains is 20 to 25 miles an hour, allowing for short halts. On long journeys, entailing long halts for rest and food, this rate could not be maintained. On the Continent it is usual to employ heavier trains than in England, moving at a slower pace.

For the entrainment of infantry about 40 minutes must be allowed for each train; for cavalry and artillery 45 to 60 minutes. The time for detraining is approximately the same. In this estimate it is assumed that suitable facilities for the operation exist at the stations used,—or have been improvised. By increasing the length of sidings, erecting temporary platforms, and improving approaches and lighting arrangements, much can be done in a few hours to expedite the despatch, or arrival, of troops, provided the station is suitably situated—*i.e.*, that space is not cramped by cuttings, embankments, surrounding buildings, and other impediments. The stations troops are to arrive at have to be considered fully as much as those they are to depart from; congestion at the arrival stations soon disorganises railway traffic, and trains must not be despatched faster than they can be received at the other end.

Within limits the distance to be traversed by rail is a minor consideration. To transport troops 200 miles only takes 8 or 10 hours longer than to move them 10 miles. It is in entraining and detraining, and in allowing for the necessary interval between trains, that time is chiefly consumed; and as regards the interval between trains, it is when the pressure of work is heaviest that it becomes most dangerous to relax ordinary precautions. Any accident might cause considerable delay.

Rate of entraining and detraining troops.

In movements by railway distance may be a minor consideration.

¹ The organisation on which these figures are based is now out of date. The proportion of railway transport to troops must, however, remain approximately the same, and these figures will still serve as a rough guide. The present British Division (1909), complete, requires 82 trains on an English railway. All necessary data for the calculation of the amount of rolling stock required for the movement of troops are given in the 'Field Service Pocket-Book,' compiled by the General Staff.

It is sometimes quicker to march troops than to rail them.

A battalion can be sent 50 miles by railway in 3 or 4 hours. It would require three days to march the same distance. To move a complete army corps 50 miles by rail from one station, however,—entailing the despatch of over 200 trains,—would mean four or five days' continuous work. It could march such a distance in less time. To send it 150 miles by rail would only take 5 hours longer than to send it 50 miles. Thus for short distances it is quicker to march large forces than to rail them, but this does not apply to small forces. Time may often be saved over short distances by railing the infantry, sending mounted troops and transport by road; or, on occasions, the fighting part of a force may be pushed on, leaving its impedimenta to follow.

Railways do not supersede ordinary roads for manœuvring.

Railways are very vulnerable. A broken bridge or a damaged tunnel may delay movement indefinitely. The movement of large bodies by rail, within possible reach of the enemy, is very dangerous, because the troops follow each other in small isolated fractions, and are very defenceless if attacked during transit. For these reasons the concentration of armies by rail must be effected out of the enemy's reach, and the subsequent marches and manœuvres, within the sphere of his operations, must be by road, in concentrated masses. Thus, in 1870, von Moltke originally intended to effect a railway concentration behind the Saar, but on finding that the French were already within striking distance of that area he ordered the detrainment to be carried out on the Rhine. The corps moved thence to the Saar by road. There will always be, therefore, a considerable space between the fronts of the armies where only ordinary roads can be relied on for manœuvring; and it is only in an inconsiderable degree, and for partial movements, that railways can with confidence be resorted to when opposing forces are so near that collision becomes imminent. Small bodies of troops can, no doubt, on occasion be railed on to a battlefield, or even moved from one part of a battlefield to another. Thus, in July 1861, at the battle of Bull Run, the defeat of the Northern army was mainly accomplished by the attack of a brigade brought on the field by railway from the Shenandoah Valley. But the success of such comparatively minor operations does not throw doubt on the principle that railways afford an extremely precarious reliance when within reach of the enemy's enterprises.

CHAPTER IV.

ARMIES OPERATE GENERALLY BY SEVERAL ROADS AT ONCE.

THE reader, then, should acquire the habit of thinking of an army, not as capable of being moved anywhere in the theatre of war, but as dependent for its efficiency on lines connecting it with magazines in its rear.

The next step is to consider the army, not as, in general, collected on one main road, but as distributed in parts on several roads.

When hostilities begin between nations, one of them at the outset almost always finds reason for standing on the defensive, and allows the other to make the attack. Declaring war against Napoleon in 1815, the Allies were induced of necessity to await the attack, because their forces, greatly superior in numbers, were scattered over an immense space. Only Wellington's and Blucher's armies were ready to meet the first onset. See Map No. 9. They were in Belgium, and three great roads cross the frontier leading from French fortresses upon Brussels, by either of which Napoleon might advance, after concentrating on it, behind the screen of the fortresses, his whole army; therefore Wellington and Blucher attempted to guard all these avenues to Brussels by placing on them portions of their forces. But these portions were liable, each or any, to be attacked by the whole French army—in fact, only one Prussian corps was assembled at the point where Napoleon's whole force broke in. Under such circumstances, all which that corps, or any of these fractions of the Allied armies, could do, was to take advantage of the fact, that the heads only of the great French columns as they advanced on the roads were available for immediate attack, and to dispute the advance till the French front should so grow in extent, by accessions from the rear, as to be irresistible, and then

Why armies on the defensive operate by several roads.

to withdraw with as good a face as could be maintained. In this way time would be gained for the concentration of the remainder of the Allies upon the threatened line. It is very easy to understand, therefore, why an army on the defensive tends to spread over a large front, on lines which radiate from the point it is sought to cover, like the spokes of a wheel from the nave.

Why invading
armies do so
likewise.

It is not at first so manifest why an *invading* army operates by many roads; but a brief calculation will suffice to show the reason.

In round numbers, 30,000 infantry on the march extend over about 5 miles of road; adding from one-fourth to one-third for lengthening out, they would extend over 7 miles; 60 guns with their attendant carriages occupy $2\frac{1}{2}$ miles; 6000 cavalry, in sections (four abreast), allowing 12 feet of space longitudinally to each horse, fully 4 miles.

If Napoleon's army had entered Belgium by one road instead of three, it would have extended as follows:—

90,000 infantry	.	.	.	.	.	.	21 miles.
20,000 cavalry	.	.	.	.	.	.	14 "
350 guns, &c.	.	.	.	.	.	.	14 "
Total	.	.	.	.	.	.	49 "

irrespective of baggage or stores of any description.¹ According to a recent French authority, by using on very wide roads what the French term the double formation, the length of the column would be reduced by three-tenths, which, in the present example, would leave 34 miles. Therefore, at the best, on a single road the head of the column must have been marching *two days* before the rear could have quitted the place of rendezvous. An army moving thus would manifestly lay itself open to defeat by a very inferior force which, by enveloping the head of the column, might inflict a succession of crushing blows before the rear could arrive on the point of action. And, in fact, though Napoleon's columns moved by three roads, the divisions in rear, moving from the same bivouacs as those in front, failed to deploy on the field of Ligny till the afternoon of the following day.

¹ Although baggage and stores may and should be kept well in rear of the fighting troops when an immediate collision with the enemy is expected, there still remain a considerable number of carts and waggons which must always accompany the fighting portion of an army. These carry ammunition, tools, medical appliances, &c., and must be allowed for in calculating space on the march.

When General McClellan moved from Washington to attack the Confederates, who, having defeated Pope, had invaded Maryland, he thus replied to some comments on his method of advancing, addressed to him by the Commander-in-Chief: "If," he says, "I had marched the entire army (about 100,000 men) in one column along the banks of the river instead of upon five different parallel roads, the column with its trains would have extended about 50 miles, and the enemy might have defeated the advance before the rear could have reached the scene of action."

McClellan's
Report on the
difficulties of
a single road.

It was found in the war of 1866 that a Prussian Army Corps, consisting of 42,512 men, 13,802 horses, 90 guns, and 1385 carriages of different kinds, took up on the march about 27 miles of roadway, 18 miles being occupied by the combatant forces, and 9 miles by the train.

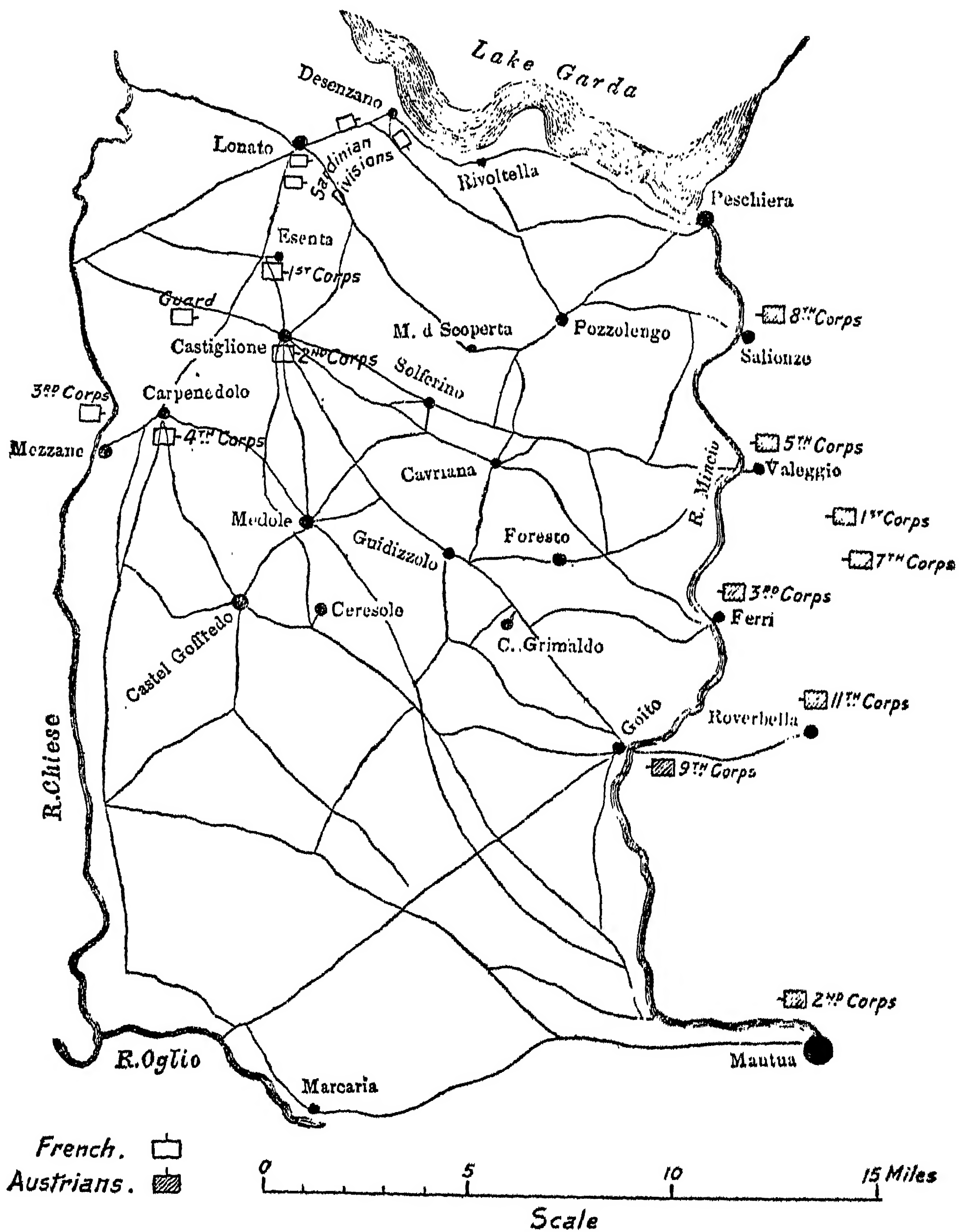
Since then, owing to increased ammunition supply, &c., these distances have appreciably increased. Even when baggage and supply reserves can be temporarily dispensed with, there still remain many carriages which must always accompany the fighting troops. Those, known as "first line transport," carry such things as ammunition, engineer equipment, medical equipment, &c., required by troops in action.

Now we will suppose, on the other hand, the extreme case that an army, on quitting its bivouacs, could find separate roads for every brigade, all converging on the point where an engagement might be expected, and all sufficiently near each other for constant communication and concert. The whole army would then be assembled simultaneously on the space to be occupied by the line of battle. In no case, of course (except in limited marches on great plains), are such facilities to be expected, but the illustration will serve to show why an army always marches by as many roads leading towards its destination as are sufficiently near to each other to admit of mutual support.

As the different portions of an army on the defensive must unite as quickly as possible on the line by which the enemy advances, it is, of course, indispensable that there should be good intercommunications or lateral roads, by which they can readily approach each other. And these should be not coincident with the front of the army, but in rear of it—otherwise, if one portion were pushed back by the rapid advance of the enemy, the line of intercommunication would be broken.

Necessity of
good lateral
communica-
tions.

SKETCH SHOWING APPROXIMATE POSITION OF FRENCH AND AUSTRIAN ARMIES
ON 23RD JUNE 1859.



Also, if an army were advancing towards the enemy, and using, for the sake of facility, several adjacent roads, these, however near, should not be separated by any impassable obstacle, such as a great swamp, a mountain-ridge, or a river without fords or bridges; otherwise, one portion of the army might be merely spectators of an attack upon the rest, as happened at Rivoli, where an Austrian column, moving on the left of the Adige, witnessed the defeat of the army on the other bank; and as occurred more notably in 1796, when the Austrians, advancing into Italy on both sides of Lake Garda, were beaten in succession by the same French army.

Thus the line by which an army moves is not necessarily, nor frequently, a single road, but several roads tending in the same direction, and united by a sufficient number of cross-roads. For instance, the French army moved to Solferino thus:—

Battle of
Solferino,
24th June
1859.

1st Corps,	from Esenta	towards Solferino.
Imperial Guard,	" Castiglione	" Solferino.
2nd Corps,	" Castiglione	" Guidizzolo.
4th Corps,	" Carpenedolo	" Medole.
3rd Corps,	" Mezzana	" Castel Goffredo.

Sardinians from Lonato and Desenzano { by Madonna della Scoperta and Rivoltella } on Pozzolengo. Pozzolengo to Medole, 8 miles.

And the Austrians reached the same field from the Mincio thus:—

8th Corps	crossed Mincio at Salionze	on	Pozzolengo.
5th "	" " " Valleggio	"	Solferino.
1st "	" " " Valleggio	"	Cavriana.
7th "	" " " Ferri	"	Foresto.
3rd "	" " " Ferri	"	Guidizzolo.
9th "	" " " Goito	"	Ceresole.
11th "	" " " Goito	"	Castel Grimaldo.

2nd Corps from Mantua to Marcara on the Oglio to turn the French right.

The two armies, each of which was advancing in ignorance of the movement of the other, thus occupying on the march the space from flank to flank which was necessary for the formation of the line of battle.

When armies approaching each other are still many marches distant, as may happen at the outset of a campaign, it is not, of course, necessary that the various columns, as they quit their own frontier, should be within supporting distance. It is when an engagement may be imminent that the lines of intercommunication become of such special importance. Moreover, it then becomes necessary to shorten as much as possible the

distance between the head and the rear of each column by widening its front. A narrator of the Waterloo campaign says, that when Wellington retired from Quatre Bras upon Waterloo, his troops moved in the open fields on each side, leaving the road for the artillery and trains. But before the French, following him, passed Genappe, a violent rain had rendered the fields impassable: consequently their troops were restricted to the road, and the column was lengthened, entailing these consequences, that Wellington's compact march was beyond reach of pressure from the enemy, and that, while his troops filed into their destined positions in the line, the rearmost French divisions did not reach the field till long after dark.

No better illustration of this part of the subject can be found than in the orders for the movement of the French army upon Casale in 1859 when about to cross the Po. They ran thus:—

Camp. de
Nap. III.—
Compactness
of movement
on the march
prescribed.

“As the army is about to operate in a country cut up with canals and rivers, the troops on the march will be nearly always in column on the causeways, and the heads alone will be at once ready for action. It is essential, then, that one division, for example, shall be so organised as to be ready to enter into line as soon as possible. To this end a division of four regiments, one battalion of chasseurs, two batteries, and two squadrons, shall be thus divided into four movable columns—

“1. A peloton of cavalry to clear the way.

“2. 20 sappers and pioneers with pickaxes to destroy obstacles, and throw small bridges of felled trees over canals.

“3. Two guns without waggons.

“4. A company of chasseurs to protect and flank the guns.

“5. A regiment of infantry.

“The rest of the battery; and so for the remainder.

“In spite of the inconvenience of prolonging the columns, a great distance will be left between them to avoid confusion.

“When a road is parallel to the railway, the infantry will march on the railway, guns on the road.

“On arriving at crossings, horsemen will be sent on all the roads to preserve communication with columns that move parallel, and to look out for the enemy.

“Whenever a halt is made, and the fields at the side of the road are

practicable for infantry or guns, the troops will form up on as wide a front as possible, to diminish for the moment the depth of the column.

“It need not be said that generals will take all the lateral roads which conduct to the same end, provided their columns will not thereby be too much separated.

“Should a column be attacked, the trains will be parked at once, to leave the road free for troops.”

(To “park” trains is to form them in compact order in fields or open spaces adjoining the road.)

In small detached bodies, infantry should average 3 miles an hour; field-artillery, $3\frac{1}{2}$; cavalry and horse-artillery, 5, inclusive of halts of a few minutes. Rate of marching.

The rate decreases as numbers increase. A division marching on one road can seldom do more than $2\frac{1}{4}$ to $2\frac{1}{2}$ miles an hour, and a corps not more than 2 miles.

For a division of all arms, 15 miles is a good average march; 15 to 20 miles a long march; and above 20 miles a forced march. Length of marches.

A large army marching continuously seldom covers more than 10 or 11 miles a-day, measured on the map from point to point. The most rapid continuous march on record is that of Napoleon from the Channel to the Rhine in 1805. Three *corps d'armée* marched on three distinct lines, each corps marching by divisions at a day's interval. The average distance was 400 miles, and the time taken 25 days.

In 1870 the Second German army, from Metz to the Loire, averaged 12 miles a-day. The IX. Corps, which made the fastest march, averaged $13\frac{1}{2}$ miles for the first 9 days. In consequence of urgent orders received at Troyes it pushed on to Fontainebleau, 76 miles, in 4 days. This was considered almost a forced march.

One of the best marches on record is that of Bulow's corps, in the Waterloo campaign, on the 16th June, from around Liege to Hannut, and thence (on receiving notice of impending battle) towards Gembloux, accomplishing about 35 miles by 9 P.M.; after which the corps marched and fought on the 17th and 18th.

Both the rate of marching and the length of marches are much affected by great heat, strong winds, snow, mud, steep hills, darkness, &c. “Moral” has also to be considered. On occasions, extraordinarily long Causes affecting rate and length of marches.

marches have been performed ; while, under exceptionally difficult conditions, a day's hard work has often resulted in only 5 or 6 miles being made good. It must be remembered that troops on the march are accompanied by quantities of transport, and it is this, chiefly, which causes delay and difficulty on bad roads, especially when the waggons are overloaded.

Value of time,
and strat-
egical advan-
tages result-
ing from good
marching.

The success of strategical combinations frequently depends on the rapidity with which they can be executed, and on the accuracy of the calculations made as to the timing of our own movements and those of the enemy. An army which cannot march well is almost certain to be out-manceuvred. A general whose strategy is based on inaccurate time calculations runs grave risk of disaster. It is therefore necessary that the question of marching should be studied not only by generals and staff officers, but by regimental officers and men. It is on the latter that the hardships and exertions chiefly fall, and their cheerful endurance can best be ensured by teaching them the great results attainable by an army which can move faster and further than its adversary, as well as the dangers incurred by an army which allows itself to be outmarched.

Influence of
telegraphs,
and visual
signalling.

The introduction of the electric telegraph has done much to modify strategical possibilities. Formerly, when mounted messengers constituted the most rapid means of communication, effective combination between separated forces was often very much a matter of chance. To-day armies separated by great distances can be directed from hour to hour by a single will, and each can be kept constantly informed of the progress of the other. One of the dangers of separation has therefore been considerably lessened. Field telegraph lines can now be established practically as fast as troops can march, and recent developments in wireless telegraphy have adapted this means of communication to the requirements of armies in the field. Visual signalling provides another means of combining movements. Crude systems of signalling were employed, to a limited extent, in the Napoleonic wars, but modern developments have made signalling a valuable auxiliary to the electric telegraph, and even, under certain conditions, a substitute for it. The influence of these improved means of communication on the conduct of war is explained in subsequent chapters as occasion arises.

CHAPTER V.

SUPPLY OF ARMIES AT A DISTANCE FROM THEIR BASE.

IN order to complete the general idea of the conditions under which armies operate, it only remains to consider the manner in which they are supplied when at a distance from their original base, frontier, or starting-point. For although a large force might be supplied with sufficient ease and certainty when separated from its magazines by only 20 or 30 miles of good roads, yet it is evident that, with every march in advance, the stream of supply would become more and more precarious, till at length the commander would be unable to base any calculations for future movements on so dubious a foundation. And of such importance is this question of supplies, that in a little book attributed to the Prussian General Bulow, which appeared in 1801, on 'The Spirit of the System of Modern War,' the author commences by saying, that he considers the system to be founded on the fact that modern armies are entirely dependent on their magazines. But he speaks expressly of modern war, evidently pointing to the fact which has been discussed in the preceding chapters, that at an earlier period, when armies were not dependent on their magazines, the whole system of war was different. And the change has affected not merely military operations, but the condition of the populations of Europe.

In the days when armies subsisted of necessity on the pillage of the country they made war in, the rigours of war were inseparable from the fact of war. The theatre of hostilities, like the English lines of invasion in France, like parts of Germany in the Thirty Years' War, became a hell, the soldiers demons. Any narrative of the time will show that life was to the wretched inhabitants filled with elements which make no part of

Evils attendant on a rude system of warfare.

the existence of any modern European people—terror ending in recklessness, the absence of all that provision for the future which hope and security induce, a greedy snatching at any present enjoyment or respite from evil, and a general impression that the world was a scene of injustice, given over to the dominion of devils. These rigours naturally reacted on the character of those who inflicted them: soldiers grew remorseless, indifferent to suffering, fond even of inflicting it; friends as well as foes were subject to outrage, war was licensed devastation, and the territories which were the scene of hostilities became frightful deserts.

These evils modified by the establishment of standing armies.

With the establishment of standing armies and the necessity for supplying them from their own resources, these horrors in great measure ceased. They were no longer inflicted by an army on its own or a friendly territory, but were used as a weapon against the enemy. But enough of the former spirit of cruelty still identified itself with war, to cause commanders of high honour and reputation to commit deeds which, from our point of view, must always stain their names. Turenne ravaged the beautiful cultivated territory known as the Palatinate; and Marlborough, after marching from Flanders across Germany, supplied by the contributions of friendly states, resorted, on entering Bavaria, to what he calls "military execution," or systematic devastation, as a means of detaching the Elector from the interests of France, by compelling him to witness the suffering of his subjects and the ravage of his dominions.

System of supply grows in importance with discipline and organisation.

A little later than this, when discipline grew into paramount importance, when movements were quicker, and when armies in the presence of a ready foe found they must be always prepared to fight, the question of supplies came to be a still more considerable element in war. A curious calculation exists, made by Tempelhoff, a Prussian general, the historian of Frederick's wars, which shows how rigorously the operations of his master were fettered by the necessity of providing assured subsistence for his army.

Tempelhoff on the supply of Frederick's armies.

"A hundred thousand men," he says, "consume daily 150,000 pounds of flour, equal to 200,000 pounds of bread.

"Bread and forage are seldom to be had in sufficient quantities on the spot—hence magazines are established along the line of operations.

"The bread-waggon carried a supply for 6 days—the men for 3 more.

"In commissariat-waggon, flour for 9 additional days could be con-

veyed—1 waggon to 100 men for 9 days; thus 1000 waggons supplied the army for that time.

“An operation of 18 days’ duration could thus be conducted without an intervening magazine; but field-ovens were required to make the flour into bread. But bread for 3 days requires 2 days to bake it. At the end of 6 days, therefore, a halt must be made to bake, or else the ovens would fall behindhand with the supply. So that, advancing into an enemy’s country, before magazines could be formed there, 6 days was the extent of march practicable without a halt.

“But when the ovens were at a greater distance from the magazines than the commissariat-waggons could perform, going and returning, in 9 days, the army fell short.” Sixty miles was therefore the maximum distance to which the field-ovens could advance from the magazines. If we add to this 40 miles, for the space which the bread-waggons (which held 6 days’ rations) could traverse in six days, going and returning, we have the full extent to which an army could venture to advance in an enemy’s country without forming magazines there—namely, 100 miles.

As at this time an army, instead of being an assemblage of bands or companies, each under its own immediate leader, had become an integer which did not admit of ready separation into parts; so the system of supply had also been highly organised in order to maintain this somewhat cumbrous machine in working order. Communications, to manœuvre against which scarcely entered into the combinations of the generals of a preceding age, had now come to be of the first importance, and the capture of a great magazine or a great convoy was a matter serious enough to derange a whole plan of campaign.

The organisation of armies in the 18th century rendered them unduly dependent on magazines.

This ultra-methodical method of campaigning continued till the time of the French Revolution. Confronting all Europe, and destitute of all the material of war except men, France poured forth armies half clad, half fed, half armed, but filled with valour, intelligence, and zeal. Old traditions of methodical war, where troops slept under tents and were fed from magazines, were of no value to armies which possessed neither tents nor magazines. A new organisation became necessary to meet these new conditions. An army, no longer itself an integer, was resolved into divisions, each complete in itself in all arms, and capable either of fighting alone, or of taking its place readily in line of battle. The amount of

Increased mobility of armies brought greater facility of supply,

independence thus gained rendered the task of supplying them comparatively easy. Alike in the plains of Flanders and on the summits of the Alps, the soldiers of the Republic learned to bivouac, and to maintain themselves in the country they made war in. What they lost in method they gained in mobility; taught by always present and always pressing necessity, they acquired the secret of spreading in order to subsist; but, being opposed to disciplined troops, they were forced also to preserve a due facility of reassembling for battle. They were at once the most accomplished of marauders and the most intelligent of soldiers. And it was this combination of seemingly adverse qualities that distinguished them from the armies of the middle ages, where the troops were indeed skilful in the art of plundering, but had neither the discipline nor intelligence necessary for forming out of the scattered units a combined force that could oppose a regular army.

Formed by this rough training, the French army became an instrument in the hand of the most subtle, inventive, and audacious leader in the world. The old system of Frederick met the new system directed by Napoleon, and was shattered to pieces. And at the root of this new system lay the new method of procuring supplies.

but did not enable them to dispense with magazines.

Pt iii. ch. 4.

But it would be a great mistake to suppose that Napoleon, when he became both chief of the state and head of the army, led on to conquest merely a horde of plunderers, who lived from hand to mouth. No general was ever more careful in accumulating great magazines and in protecting his communications. All his precepts prove that he felt more strongly even than the strictest generals of the old school the necessity of holding fast to the links which united him with his base. After Jena, for instance, when he had broken in a single day the power of Prussia, his first thought, after providing for the pursuit of the defeated enemy, was to establish a fresh and shorter line of communication with France, and to station on it great hospitals and depots of stores. In what, then, it may be asked, did the advantage of the French system consist, since it did not free him from the restrictions which hampered others?

The system of requisition was not new. In the wars of all epochs forced contributions had been raised. But those contributions had been exacted chiefly for the purpose of replacing the stores which the first operations would exhaust. Thus time was given in which to accommo-

date the burthen to the population. The contributions were made proportionate to the resources of each district, and were drawn from a greatly extended area. But the French Republican armies, dispensing, in great degree, with the supplies which armies had previously drawn from their own countries, and used in their first operations, seized at once, on entering a territory, on all that they required for daily consumption—bread, meat, wine, cattle, fuel, forage, and transport; thus ruining the country along their line of march, but gaining thereby great facility for rapid and sustained operations; while the more deliberate and equitable system formerly practised was still resorted to for the filling of the great magazines, which a lengthened campaign would render indispensable.

It will be easily seen that this Republican system could not be applied by an army acting either in its own or in friendly territory. It was equally impracticable for the British in Spain, and for the Austrians in Germany and in Italy. These armies could only draw their subsistence either from their own countries or from the willing contributions, duly paid for, of the people in whose countries they were operating. But however supplies may be obtained, the storing of them in magazines along the lines on which the army operates is indispensable—and it is therefore necessary to inquire what is the method of forming depots to which all generals must more or less resort.

The Germans assume that a corps of 35,000 men and 10,000 horses, extending over a front of 5 miles and a depth of 9 miles, can traverse a moderately fertile and populous territory without aid from its magazines; because, within the area designated, a day's subsistence for that number of men and animals will without difficulty be found. But this supposes two conditions: 1st, That a body of cavalry, and officers charged with the duty of exacting requisitions, precede the march of the corps and compel the inhabitants to bring the provisions to given points of the lines of march (which could not be done when near the enemy); 2nd, That the troops advance continuously, day by day, with only an occasional halt. Directly they become stationary, the supplies thus obtained fail. Thus, whenever in presence of the enemy, or whenever stationary for more than a day—that is to say, during a great part of a campaign—they must depend on magazines collected in rear of the army; and the collection and

Supply-trains
of a Prussian
army corps.

distribution of these have been reduced by the Germans to a minutely organised system, which may be generally described thus:—

When the army enters an enemy's territory, the first magazines are formed (generally by contractors) on its own frontiers. From thence their contents are transmitted, if possible by rail, to within a safe distance of the front of the army. Some at least of the more advanced magazines are formed, whenever practicable, by obtaining in the enemy's territory both supplies and the horses and waggons necessary to collect them. As the army advances, others are established beyond these, the official in charge of each magazine being responsible that it is always kept full. But it is still necessary that the stores so collected shall be distributed to the troops; and for the purpose of maintaining constant communication between them and their magazines, large supply-columns are attached to each army corps. In the war of 1870-71, against France, these were of two kinds—viz.:

1st, Those formed of waggons hired, or procured by requisition, in the country, which carried forward the supplies from the magazines: 400 of these waggons were attached to each army corps, capable of carrying 9 days' rations for men, or 7 days' corn for horses. In practice, a proportionate combination of these supplies, according to the circumstances of the case, is usually found necessary.

2nd, The immediate supply-train, formed of 4-horse military waggons, 160 in number for each army corps, and usually carrying 4 days' rations for men only. These, filling up either from the former columns, which moved on the principal roads, or, when practicable, direct from magazines near them, conveyed so much provisions from thence to the troops throughout their extended line.

Thus, when more than seven army corps were drawn up round Metz, the roads of the district are described by an observer as crowded with thousands of waggons carrying provisions from the great magazines at the railway stations to the troops.

But besides provisions, there are many items to swell the stream of transport: ammunition to replace the expenditure of battle forms a large one, and can only be obtained from the home manufactories;¹ sick and

¹ Ammunition requirements, obtainable only from home manufactories, tie an army to its line of communications even more than food supplies do. An army may often live for days

wounded are sent back to hospitals formed in rear of the army; and there is a special postal service.

It may be imagined, then, under what difficulties a great army would suddenly change the direction of its movement if it had not a carefully organised and administered system of supply and transport: as, for instance, when the Crown Prince's army in 1870, in full march towards Chalons, was suddenly wheeled to the right on the discovery of MacMahon's march, when the German *intendance* proved equal to the sudden strain.

In order to preserve a sufficient independence of magazines and trains for the execution of sudden manœuvres, the German soldiers carried in their knapsacks rations for 3 days, made up in packets, which were only to be opened when all other supplies failed; and, in addition to these, at least one ration of the ordinary kind, for immediate consumption, was commonly carried in the haversack.

When armies have to undertake operations in inhospitable regions, where few supplies are procurable and transport is difficult, movement is much hampered. Under such circumstances long periods may have to be devoted to the formation of magazines before operations can begin, and special measures may be necessary to cover the formation of these magazines. Such conditions usually exist in small wars against savage tribes, but the recent war in Manchuria offers an example of large armies having to cope with somewhat similar difficulties. These difficulties frequently account for a slowness of movement seldom understood by the public, and often giving rise to unmerited criticism.

The effect of railways in modifying the conditions of war is in nothing so important as in the supply of armies. The enormous transport trains which formerly passed between an army and its base may now be for

Influence of
railways on
supply.

on the country and on captured supplies; but the supply of ammunition which it can take with it is very limited; it cannot be replaced by captured ammunition of another pattern; and without ammunition a modern army is defenceless. To give an idea of what the stream of transport amounts to, it may be stated that the vehicles actually accompanying one British army corps, not including guns, number about 2500, of which over 600 carry ammunition. The fighting strength of such an army corps being only 25,000 cavalry and infantry with 152 guns, and all these vehicles having to be kept full by means of other vehicles plying between the army and its magazines, it is easy to imagine what the traffic on the line of communication of a large army amounts to.

Principles
of supply
unchanged.

a great part of the distance dispensed with, and the connection will be maintained with far greater speed and certainty. An immensely increased area will generally be available for immediate supplies, and particular districts need no longer be subject to exhausting requisitions. The establishment of great magazines at the junction of important lines will be effected with comparative ease, and the operations of army transport in the form of horses and vehicles will be confined to the space between the depots formed on the railways and the front of the army. The sick and wounded, removed with ease and regularity, will no longer encumber the movements of armies to the same extent as before, and the commanders will be lightened of some of their heaviest cares. But the same principles as before must govern the selection of points on which to establish magazines, and the direction of the lines of supply. And as railways are a more vulnerable kind of communication than ordinary roads, the general will be not less solicitous than before to guard his communications from the enterprises of the enemy.

Influence of
railways ex-
emplified in
Sherman's
campaign in
Georgia,

In the campaign in Georgia, 1864 (described in Part IV., Chap. VI.), the aid which Sherman derived from his railway was very important. He was operating in a country where the obstacles were numerous and the roads bad; and he was linked to his base by a single line of railway, conquered bit by bit from the enemy, who frequently broke it in retreating. "This main road," he says in his Report, "has been admirably managed, and has supplied this vast army (100,000 men) so that not a man, horse, or mule has been for a day without food, and with abundant supplies of clothing and ammunition." Not only was the daily supply kept up, but provisions for several weeks were stored at important points of the communications. And throughout the campaign the cavalry on both sides were extensively employed in enterprises against the railway, as the most effectual means of damaging the enemy.

and in the
siege of Paris.

In the campaigns of the Prussian army in France in 1870-71 it was found that, as a general calculation, one train a-day would feed a corps. During the siege of Paris, one railway for some time fed the army of (in round numbers) 200,000, brought up the siege material, and reinforcements averaging 2000 to 3000 men a-day, and even at one time fed Prince Frederick Charles's army also, with very slight aid from the resources of the exhausted theatre of war.

It is sometimes argued that very large armies must become so unwieldy that they may be defeated by smaller and more mobile forces. The truth of this argument depends on the correctness of the theory that unwieldiness is a necessary consequence of size. That mere numbers, when badly trained and organised, badly armed, or wanting in valour and "moral," may be defeated by smaller forces who are superior in these respects, is amply proved by history. It is also true that want of capacity in a commander may lead to defeat, and that the command of very large forces demands a rarer ability than the command of smaller ones. But the capacity of a commander can only be tested by war; there can be but little difference, in these days, between the armies of civilised Powers as regards valour, "moral," training, organisation, or armament; and, so far as such armies are concerned, history lends no support to the view that numbers may be a disadvantage so long as they can be adequately supplied. Neither Napoleon in 1814, nor Lee in 1864-65, was able to compensate by skill for want of numbers, although in previous campaigns, before they had beaten their opponents into efficiency, they had frequently been victorious against considerable numerical superiority. The preparations of the great Continental Powers to-day show that they place their reliance on numbers combined with the other qualifications which go to make up efficiency. It is interesting to note that similar arguments as to the disadvantage of great numbers were advanced by theorists in the days of Clausewitz, who scoffed at them.

Difficulty in
manœuvring
great num-
bers.

The object in mentioning the question here is to call attention to the bearing on it of railways. Unwieldiness means inability to manœuvre, and, when armies are well trained, organised, and commanded, inability to manœuvre can only result from difficulty in supplying them while in motion. This difficulty can be solved when suitable railways exist. Without railways the vast forces employed in recent wars could not have been maintained in the field; with railways we may expect to see even larger forces employed in the future, and, given efficient command and organisation, it does not seem likely that they will be found unwieldy. In future, too, it is not only existing railways that we shall have to consider; we must expect to see light railways laid down for supply purposes, even during the course of the campaign.

Relation
between rail-
way facilities
and the num-
bers that can
be employed
in the field.

Mechanical
transport.

The possibility of supplying large numbers in the field is also affected by the introduction of mechanical transport. Where suitable roads exist such transport is likely to replace horse transport, at any rate to a considerable extent, in bringing forward supplies from the magazines formed at "rail-head." Mechanical transport takes up considerably less road space than is required by ordinary waggons carrying the same weight, and is, moreover, capable of more continuous and more rapid work; but only the very best roads would withstand for long the great wear and tear resulting from its use.

Canals and
rivers as lines
of supply.

The means of supplying troops in the field is not restricted to roads and railways. Canals and navigable rivers, when their direction is suitable, form valuable lines of supply. They have, too, this great advantage over railways, and even over roads, that they are practically invulnerable, excepting only the canal locks, and these locks are usually further apart than the vulnerable points on a railway. Another advantage may be claimed for them in comparison with roads,—they do not wear out, and though severe frosts, floods, and high winds may affect movement on them, progress on roads may be equally delayed by bad weather.

Over-sea
expeditions.

So far we have dealt with the movement and supply of armies on land. The transport of troops across the seas, and their supply from a sea base, constitute yet another branch of the military art, a branch of especial importance to an island Power. All that is aimed at for the moment, however, is to place before the student just so much information as will serve him as "footing for a farther advance." Such considerations as are peculiar to over-sea expeditions are reserved for subsequent chapters.

It has been thought necessary to dwell so strongly on this part of the subject, because it is absolutely essential as a foundation to any solid superstructure of military theory, and because its importance is apt to be overlooked by those who form estimates of warlike operations. Armies are not like fencers in an arena, who may shift their ground to all points of the compass. The most unpractised general *feels* this at once on taking a command in a district where his troops are no longer supplied by routine; or, if he does not, the loss of a single meal to his army would

sufficiently impress it on him. While distant spectators imagine him to be intent only on striking or parrying a blow, he probably directs many glances, many anxious thoughts, to the communications in his rear. Perhaps no situation is more pitiable than that of a commander who has allowed an enemy to sever his communications. He sees the end of his resources at hand, but not the means to replenish them. Is he to spread his troops to find subsistence for themselves? How then shall they be assembled to meet the enemy? Shall he combine them for a desperate attack? How, if that attack fails, are they to be fed? He will then have no alternative but to make the best terms he can, or see his army dissolve like snow. Even should there be near him large available stores of food, still if the communication with his base be cut, his fate is merely postponed, for he can neither procure cartridges and balls for his rifles, shot and shell for his cannon, nor recruits for his ranks, to replace the waste of battle. All leaders, then, must feel how stringent are the conditions under which they move, and how considerable must be the prospective advantages for which they will venture, even remotely, to risk the loss of their communications.

Condition of
an army
whose sup-
plies are in-
tercepted.

It will be necessary, then, for the student to begin by ascertaining the bases or points on both sides on which the armies ultimately relied for the supplies of munitions of war, and for the reinforcements which their respective governments furnished; constantly to note and bear in mind the main roads by which, moving from their bases, they approached each other; and lastly, to mark the positions of the fronts of the armies in all their changes.

Matters to be
noted on be-
ginning to
study a cam-
paign.

The movements of the opposing armies must be studied,—always with the aid of the map,—not merely to gain a knowledge of the incidents which occurred, but to ascertain the cause, object, and result of each movement. From such study a knowledge of principles will be acquired as well as of the methods followed by successful commanders in applying them. The principles of war are not in themselves difficult to understand; the real difficulty lies in their application. The mind can only be trained to this, in peace-time, by close study of campaigns, and by the solution of definite problems on maps and on the ground.

PART II.

THE CONSIDERATIONS WHICH MUST PRECEDE THE OPENING OF A CAMPAIGN.

CHAPTER I.

DIFFERENCES BETWEEN OFFENSIVE AND DEFENSIVE WAR.

It is for governments to choose between the offensive and defensive.

Reasons for choosing.

BEFORE the commencement of hostilities, a belligerent government which knows its own resources and those of its enemy must decide whether its army shall make or await the attack. And though it has sometimes happened, as in the Italian campaign of 1849 (Novara), that both parties simultaneously advance across the frontier or region which separates them into the territory occupied by the adversary, yet it is far more usual, as might be expected, for one to dispose its forces on the defensive and leave it to its antagonist to commence operations. The considerations which induce a power to choose between a defensive and an offensive attitude may be political, or geographical, or dependent on the relative strength of the belligerents, or on the comparative facilities for assembly afforded by their respective systems of organisation.

At the beginning of the American civil war the Confederates stood on the defensive. That this attitude was not chosen from weakness is proved by the successes they met with in the first operations. In separating from the Union they had declared that they sought only their own independence, not the subjugation of other states. Had they made war in the North, as the Federals made war in Virginia, Louisiana, and

Georgia, they would have falsified the principles for which they took up arms. And it is said that their President prevented them from advancing upon Washington after the victory of Bull Run, lest an invasion of the North should injure the cause of secession. Thus *political* reason may be assigned for their defensive attitude.

In 1812 and 1813 Wellington held the fortresses which closed the only highroads between Portugal and Spain—namely, Ciudad Rodrigo and Badajos. Thus he possessed an impregnable frontier, and also the means of issuing from it. These *geographical* circumstances gave to him and denied to his adversaries the power of becoming the assailant. See Map No. 11.

When Turkey in 1877 was assailed by Russia, it was out of the question that she should do more than defend her own territory as best she might. The fact of her *inferior force* reduced her to the defensive.

In 1870 the French intended to cross the Rhine in an offensive campaign. But the *superior readiness*, for assembling and movement, of the German armies, enabled them to take the initiative.

But the reason for introducing this subject is not to discuss the various cases where belligerents have chosen a part, but to point out the conditions which attach respectively to offensive and defensive war.

It is evident that when one belligerent power feels secure behind an unassailable frontier, and holds many issues into the enemy's territory, either by command of the sea or otherwise, it can assemble its forces unknown to its antagonist upon some point selected by itself, from whence to make an irruption into the theatre of war.¹ And if the belligerents be divided only by a frontier line,—a river such as the Rhine or Potomac, or a mountain-range such as the Alps,—the army that passes it will nearly always find itself immensely superior to the force that can immediately interpose. For the defender's army has probably, by the conditions of the defensive, been induced to spread so

¹ Under modern conditions such secret assembly of forces is far more difficult than it used to be. The position of railway centres may afford a clue to the probable points of assembly. The rapid transmission of news by telegraph, through neutral territory especially, makes it difficult to prevent timely information leaking out. Japan, certainly, in the recent war in Manchuria, succeeded in keeping the movements of her troops very secret, but it is more difficult to do so under European conditions. Moreover, an island Power, like Japan, controlling the surrounding seas, has greater facilities for preventing the leakage of information across her frontiers than a Continental nation can have, and movements by sea are easier to conceal and far less restricted as to direction than are movements by land.

as to guard all possible avenues by which the attack might be made. Thus, in the Waterloo campaign, Wellington and Blücher, on the defensive, were guarding all the roads from the French frontier into Belgium, along a front of a hundred miles. Napoleon suddenly assembled his whole army upon the centre of their line, and, on first entering Belgium, was greatly superior to any force which the opposing generals could interpose between him and his object, Brussels.

In the American civil war, Richmond being the point aimed at by the principal Northern army, the Federals could, behind the screen of the Potomac, concentrate their forces and advance, either from the upper Potomac, down the Shenandoah Valley; from Washington along the Orange Railroad to the Rappahannock; from Aquia Creek, by the Fredericksburg and Richmond Railway; by the peninsula between the York and James Rivers, adopting either stream as a base; or from the south side of the James River by Petersburg. They used all of these lines, and frequently advanced at first with numbers greatly superior to those which the Confederates could assemble to oppose them. Thus the great advantage conferred by the offensive is the *Power of Concentration*. And if this advantage be not neutralised by artificial or natural defences, behind which the enemy can, with such forces as may be at hand, retard the advance of the assailant till the whole defensive army be also concentrated, it entails enormous chances of success. For the defensive cordon being ruptured, and the concerted action of the parts of the army lost, the assailant deals his blows right and left on the scattered fragments, till his road to his object is clear.

The advantage of assuming the offensive.

At the outset, then, the assailant, when operating in a country suitable for military movements, and defended only by an army—not by fortifications—has great chances in his favour. Nor does his advantage end with the first onset; for the defender may be obliged to follow his lead, and to parry his blows, instead of actively assailing him; and while the invader is executing designs already laid down in their minute particulars, and knows what he is aiming at, and what steps the enemy will probably take to foil him, which, being foreseen, may be provided for, that enemy is operating to a certain extent in the dark, and perhaps neglects even to use what power of concentration he may possess till too late, fearing lest the attack should be a feint. Dislodged from his first positions, and dis-

concerted by finding that his troops are still scattered in presence of a concentrated enemy, he will probably be too completely absorbed in the essential measure of collecting them in some position between the invader and his object, to devise offensive measures against him. Thus the first success will lead to others, and each will more and more confirm the invader in the possession of the advantage called by military writers *the initiative*—that is, the power of compelling your adversary to make his movements dependent on your own.

But it is evident that the power which commences operations in this decisive way must not only possess great resources, but must also be able to render them immediately available in the district wherein lies the destined starting-point. And great preparations must be made, not only for the collection of supplies, but for causing them to follow the forward movements of the army. The most abundant stores will be of no avail if there be deficiency of transport. The army, checked in its career, must halt to await its supplies, or spread to gather them from the country. In either case the impulse of the advance will be lost, and the initiative will be seized by a ready adversary.

Cost of invasion to the invader.

On the other hand, the defensive army, being distributed over a wide area, is much more easily supplied. The resources of each district are probably adequate to maintain the troops occupying it. The necessary stores, instead of being directed at great cost of transport upon some particular focus, are collected at many central points. The roads by which the army is supplied from the rear are numerous, and transport is thus immensely facilitated; and when compelled to retire, it falls back amidst its magazines, and the requirements of transport are more likely to diminish than to increase. Thus, comparing the tax which war levies on belligerents, the greater strain evidently falls at the outset on the power that undertakes offensive operations; and, in modern times, none but a highly-organised system for developing and administering the resources of a state, directed by a paramount and concentrated authority, such as that of a despotic government, can be adequate to begin and maintain them effectually.

Advantage of the defensive.

If, however, a belligerent has the means to sustain the offensive effectually, it is evidently the least expensive course in the long-run, since decisive success will throw the burden of the war on the conquered

territory. Thus Napoleon, in several offensive campaigns, almost without a check, ruined the military power of great monarchies, and imposed on them what terms he pleased. But such rapid successes are exceptional where armies are not very unequal in force, and it is necessary to consider the position of an invader who advances continually from his base against strong opposition.

Advantages
of an army
operating
in its own
country.

See Map
No. 8.

An army operating on its own territory is not restricted, like the invader, to a single line. It is true that its efforts may all be directed to cover a single point aimed at by the enemy, as the efforts of the army of Virginia had for their grand object to defend Richmond. But to defend a point it is not necessary to interpose directly between it and the enemy. Provided supplies can be obtained in other directions, the defensive army may assume a front on one side of the line by which the assailant is advancing, and parallel to it; and so long as it is undefeated, it is evident the enemy cannot advance except under penalty of being cut from his base. Thus McClellan advances upon Richmond from the Pamunkey at White House, while the Confederates are spread over a front extending from Richmond to Winchester in the Shenandoah Valley. But the force in the Valley under Jackson, drawing its supplies probably from Lynchburg, advances in an easterly direction upon Hanover; the troops before Richmond join it; the front of the Confederates thus no longer looks north, but east; and McClellan, fearing at the next move to be cut from his base, lets go his hold of the Pamunkey and transfers his stores to the James River just in time to save his army from destruction.

This mode of operating, then, which is open to the whole defensive army, is also open to a part of it. A single corps drawing its subsistence for a time from points on the prolongation of the flanks of the general line may operate on either side against the roads which connect the invader with his base. The enemy must protect these roads either by occupying all the avenues by which they could be assailed with adequate forces, in case those avenues are few; or should the exposed points of the line of communication be numerous, then by detaching movable corps to guard it throughout its length, and to protect the convoys. The term "roads" must be here understood to include railways or other means of communication. Railways, as has already been pointed out, are particularly vulnerable, and therefore difficult to guard. An insignificant de-

tachment may, with little risk to itself, interrupt the movement, by rail, of a considerable force, and even inflict on it serious injury; whereas the compact march of a large body by ordinary roads can only be impeded by a force proportionately great. A patrol may cause such damage to a railway as would interrupt the transport of supplies for days, or even weeks; but it is only where large rivers are crossed that permanent damage to roads can be easily effected, and such crossings usually occur so seldom that but few men are absorbed in guarding them. With each step that the invader makes in advance, the difficulties of guarding the line increase in proportion to its length, and the force detached for its protection increases also. Nothing except the disabling of the enemy by heavy defeats can prevent these enterprises against the communications; but the force which can be collected for battle is constantly decreasing with the length of the line, till the defender may find himself, notwithstanding the losses he may have suffered earlier in the campaign, superior in number on the point of collision in the later stages, and, snatching the initiative, may force his adversary to defend himself in retreat.

A notable illustration of the dangers of a long line of communication is furnished by Napoleon's Russian campaign. During his advance upon Moscow, two Russian corps were moving, the one from Finland, the other from the south of the empire, towards his line of communications. They struck it where it crossed the Beresina, and caused the horrible disasters of that famous retreat.

If a defensive army were to restrict itself entirely to parrying blows, the enemy, feeling secure in his communications from the inertness of his opponent, would be enabled to keep his fighting power undiminished by detachments in the rear. To pursue such a course, then, even when very inferior in force, is suicidal in a defender; since a detachment judiciously menacing the enemy's communications may hold in check (or let us say, in military parlance, may *contain*) a much greater number of the enemy, and proportionably diminish the disparity between the main armies. It does not follow, then, that because an army is defending a territory it must confine itself to the defensive; on the contrary, it will best effect its purpose by actively threatening its adversary, and by taking the lead whenever an opportunity offers.

Impolicy of
operations
absolutely
defensive.

Balance of
advantage.

Such are some of the advantages and disadvantages which attach respectively to offensive and defensive warfare, and which mainly depend on the question of magazines and lines communicating with them. The offensive confers, at the outset, the power of concentrating on the flank or centre of the enemy's line of defence, and so turning or breaking it. The defender must either oppose the enemy with an inferior force at first, or abandon territory in order to assemble his forces at some point farther back. On the other hand, offensive war demands great resources, and success itself, if not absolute and decisive, entails fresh difficulties on the invader. And when he has penetrated far within the defender's territory, the situations of the antagonists differ greatly, inasmuch as the army on the offensive is bound to its base, be that base wide or narrow, while the defensive forces may base themselves on any part of their territory which will supply them, and which their front protects.

Subject of this
chapter as
affected by
railways.

As facility of transporting troops and material increases, so the power of concentrating the military resources of an empire on a distant frontier, for entrance on a foreign theatre of war, increases also, and so far his own railways are of great help to an invader. But as he cannot count for subsequent aid on the railways of districts held by the enemy, nor be certain that the course of events will not make districts where there are no railways the scene of operations, he may be dependent on horses and vehicles for further supplies. Thus we find great preparations made by France for transport in Italy in 1859; and the railways of the Northern States of America did not prevent a vast expenditure of transport animals in the different invasions of the South. Offensive, compared with defensive, war must still be enormously costly. But the invader will retain and even augment, by means of his railways, the advantage of making a sudden concentrated advance on part of an extended line of defence; and even the combined resources of telegraphs and railways could not avail to meet the first onset under circumstances geographically unfavourable to the defence, such as will be described in subsequent chapters; especially when it is considered that the defender must labour under the same doubts as before in divining whether the attack is real or a feint.

Great prepar-
ations still
necessary for
invasion.

Railways
facilitate the
first opera-
tions of the
assailant.

But, on the other hand, the defender, if forced to retreat, will easily destroy for the time the railways in the territory which he is quitting while preserving the full use of those which he still covers; whereas the assailant must either content himself with the ordinary roads, or pause to repair the railways and to reorganise the means of supply through those channels. Thus the advantages of the initiative will in such a case be much more transient than before, and the defender will concentrate on the threatened line with far greater comparative facility.

Reasons why
they sub-
sequently
favour the
defence.

CHAPTER II.

THE SELECTION OF AN OBJECT.

What are
generally the
objects of
military
operations.
Conquest of
territory.

It is clear that offensive operations cannot be conducted with unity, or directed with precision, unless the object to be gained by them is kept distinctly in view by those who plan and execute the campaign. Where territory easily accessible to the power that assumes the offensive is the subject of dispute, the object will generally be to occupy the country in question. Thus Louis Napoleon rested satisfied with driving the Austrians beyond the Mincio, and adding the country westward of that river to the dominions of Sardinia. But whether in such a case hostilities will terminate with the occupation of the province must depend on the ability of the other belligerent to continue the struggle. Frederick II. began the Silesian wars by seizing Silesia, the primary object of desire; but the conflict that ensued thereupon lasted twenty years. Whenever the *causa belli* is something less definite and tangible than disputed territory, the undeniable superiority of one belligerent and the acquisition of some material guarantee can alone be expected to bring the adversary to terms.

Occupation of
an enemy's
capital.

That guarantee is generally sought in an enemy's capital. The occupation of its chief city paralyses a civilised country. As all great roads meet there—as it is the centre of trade, the focus of wealth and of civilisation, and the seat of government—its occupation by an enemy is so ruinous that any terms he may impose will generally be less pernicious than his presence.

But it is not sufficient to enter the capital unless possession of it can be maintained. In 1757 an Austrian general of hussars entered Berlin and levied a contribution on the city, but being forced to quit it on the

approach of the Prussian King, the incident produced no result. Napoleon held Madrid for four years, and set up his brother as King of Spain, yet the Peninsular war went on in half the provinces of the kingdom. He seized Vienna in 1805, and again in 1809, yet in each case a great subsequent victory was necessary to the overthrow of the enemy's power. The mere possession of the capital, then, is not final so long as the enemy can still make head in the field. It is when the seizure of the capital is coupled with such ascendancy over the defensive armies that they can never hope to retake it, that further resistance is felt to be hopeless, as leading only to national extinction, and that any terms not absolutely unendurable are accepted by the vanquished. Recognising these truths, Napoleon's first efforts were directed to disorganise and ruin the enemy's armies in the field; his next step, when the way was clear, was to seize the capital, and then with his clutch on the heart of the country, with the public opinion of all nations strongly influenced by his commanding attitude, and with the opposing armies disheartened by misfortune, he advanced to deal the stroke that was finally to lay the antagonist power prostrate.

Defeat of the
defensive
armies
necessary.

It sometimes happens that a point may assume an adventitious importance, sufficient to make it the object of a campaign. Sebastopol is a remarkable instance. Situated at the extremity of an obscure and unimportant province, the conquest of which would be no step towards the invasion of Russia, this city, formidable by reason of its docks and arsenals, was, from its proximity to Constantinople, characterised as a standing menace to Turkey, and as such was of sufficient importance to be the object of the vast efforts made in that war by France and England.

Sebastopol an
exceptional
object.

Such cases are, however, exceptional, and the general course of a campaign between two great powers is a series of manœuvres and engagements for the possession of the capital or other specially important town of the power that stands on the defensive. And it is evident that the course of the war must vary with the distance of the invader's frontier from the menaced point. If France were to make war upon Italy, the invading army might, as soon as it had secured the passage of the Alps by the Mont Cenis, reach Turin¹ in a single march. But if Austria were at war with Italy, the Italian capital is much more secure from an

¹ Turin was the capital of Italy when this was written.

Intermediate
object found
in a defensive
line.

adversary whose armies must traverse the breadth of North Italy to attain it. The proximity of Richmond to Washington caused the Federal Government in each campaign in Virginia to base its calculations on the assumption that the operations of a few days, or at most a few weeks, must wrest from its adversary's hold the city from the possession of which it expected such decisive results. And no doubt early in the war, before the capital was fortified, a single crushing defeat sustained by the Confederates in the field would have given Richmond to the Federals. But in cases where a great distance separates the invader from his object, he cannot expect to attain it in a single effort. Thus, if France were at war with Austria, she could scarcely expect, in the most favourable circumstances, to reach Vienna in one campaign. Her first object would be to attain a position in Austrian territory which would form a secure starting-point for a fresh effort. If she were aiming at Vienna through Germany, and a French army could advance between the Danube and the Tyrol, securing the passages of the Danube on the one side and of the mountains on the other, till it could rest on one of the great streams flowing across the space between, such as the Iser or the Inn, it might establish itself there, and collect its strength for a fresh effort in another campaign. If France were at war with Spain, the first object of a French army might be the line of the Ebro—the next, the line of the Douro or of the Guadarama mountains—then Madrid and the Tagus. Thus the object of an invading army may be either a point from the possession of which it expects decisive results, or a strong defensive line such as will be an important step towards that point.

Distinction
between
political and
military
objects in war.

It is most important to distinguish between *political* and *military* objects in war. War is a political instrument, resorted to by governments when peaceful methods have failed. The ultimate object of every war, therefore, is political, and is decided by governments and not by generals, who are merely the servants of their governments. In very exceptional cases, the mere occupation of some important point may induce the hostile government to sue for peace. Thus in 1814, when the Allies occupied Paris, popular discontent forced Napoleon to abdicate, although he considered ultimate victory still possible. But, as a general principle, a nation will not resign its political objects until convinced of its inability to gain them, and this conviction can only be forced on it by

the defeat of its fighting forces. The first military object must, therefore, almost invariably be the complete defeat of the enemy's forces in the field. This truth must constantly be borne in mind while studying the subsequent chapters. The stronger of two adversaries will do well to act on von Moltke's view that the first object of a general should be to "seek out the enemy's main forces, and, when found, to attack them." The weaker will often be wise at first to avoid battle, but as he can only gain the object of his government by defeating the enemy, he must avoid it only while the conditions are unfavourable to him, and his constant object must be to find or make opportunities for dealing effective blows.

CHAPTER III.

THE SELECTION OF A THEATRE OF OPERATIONS, AND
LINE BY WHICH TO OPERATE.

WHEN great powers are at war there will generally lie along their extensive frontiers many portions of territory by any of which the belligerents can pass towards their object. In America, Eastern Virginia, Western Virginia, Kentucky, Tennessee, and many points on the seaboard, have been entered by invading armies from the North. French campaigns against Austria have been made in Italy, in the Tyrol, in Suabia, and Bavaria, and along the Mayne. Napoleon made war in Spain by the east side of the Pyrenees in Catalonia and Aragon, and by the west side in Castile, Leon, and Estremadura.

Several alternatives may offer.

Evidently there is much scope for selection among the regions that may become the theatre of war. And each of these regions generally affords many lines by which the invader may aim at his object. The main Federal army of the Potomac in various campaigns advanced, or attempted to advance, upon Richmond by the lines Alexandria-Centreville, Aquia-Fredericksburg, White House, Malvern Hill, and Petersburg. And in aiming at the valley of the Danube, the French have penetrated to it by many different routes. In 1796 Moreau crossed at Kehl, and directed his army by the northern border of the Black Forest upon Ulm. In 1800 the same general advanced from the Swiss portion of the Rhine along the southern skirts of the Black Forest. In 1805 Napoleon crossed the Rhine at Carlsruhe, Spire, and Mannheim, marching on Donauwerth.

When England sends forth an army, the command of the sea enables

her to select as her base of operation any part of a coast from which she can reach the enemy. English armies operated during the Peninsular war from Mondego Bay, from Lisbon, from the coast of Andalusia, from parts of the eastern coast, and from harbours in the Bay of Biscay. At the outset of the Russian war in 1854, the Allies landed at Varna to operate on the Danube; later, they crossed the Black Sea for the campaign of the Crimea. If it is necessary for great Continental nations to make a wise choice between many alternatives when considering what their territorial line shall be, much more is it incumbent upon England to summon her most sagacious chiefs to council before committing herself to one of the numerous avenues which her maritime ascendancy will offer for her choice.

Many considerations will commonly enter into this question of selection. The convenience and security of the base—the position of the enemy's forces—the facilities, in the shape of good and practicable roads, &c., for reaching the object—the proximity to the object—the fitness of the topographical character of the theatre to the army destined to operate in it,—will all be elements in the problem. If that portion of the invader's frontier which is contiguous to the territory occupied by the main army of the defensive power be impregnable, that will be good reason for making some other region the theatre of war. If, on the contrary, the invader's frontier be extensive and open, it will generally be expedient for him to base himself on that portion of it which will be covered from a counter-invasion by his advance. Thus the most vulnerable part of the French frontier in 1815 was opposite Belgium; and had Napoleon crossed the Rhenish or Alpine boundary, making Germany or Italy the theatre of war, Blucher and Wellington could have marched on Paris; whereas, by advancing into Belgium, and trusting to the strong natural boundaries to keep the enemy from invading France at other points, the Emperor covered with his army, so long as it remained undefeated, the otherwise exposed part of his territory.

Considerations for selection of a theatre.

The power meditating the offensive must also consider the fitness of the theatre to its own army. If that army have a preponderating strength in cavalry, an open country will suit it best; if infantry be its chief reliance, a hilly or wooded region, which may neutralise the enemy's superiority in the other arms; if artillery, good roads and positions which

command sufficient expanse of country, will be indispensable to its most effective action. To determine this point a broad and general survey will suffice. But a more intimate acquaintance with the topography of the theatre, and a knowledge of strategy, are required, in order to determine the further questions of what points in that theatre are most important as steps towards the object, and what are the chances of gaining possession of them.

Example of
selection in
Marengo
campaign.

As an example of the way in which, after admitting all these various elements of the question of selecting a theatre, a balance may be struck and a decision formed, let us take the case of the campaign of Marengo.

See Map
No. 5.

While Moreau operated from the Rhine on the Danube, Napoleon was to attack the Austrians in Italy. They were besieging a French garrison in Genoa; they had advanced and occupied the passes of the Alps on the Italian side from Lake Maggiore down to the junction of the Apennines; and they had a considerable force south of the Apennines endeavouring to force their way into France across the Var, which river was defended with inferior numbers by Suchet. Thus the Austrian front extended along the whole Italian frontier of France.

Napoleon's objects were to deliver the besieged garrison of Genoa, and to strike a decisive blow against the Austrians in Piedmont and Lombardy.

The Austrian lines of communication with their base and of retreat led from the various points of their front to Mantua and Verona, and, owing to the geographical features of North Italy, all the roads by which they could gain those cities were compressed laterally into the space between Milan and Piacenza. If Napoleon could throw his army across that space, he would effect a double object—he would cut the communications of the enemy, and, by forcing them to concentrate for action, would deliver Genoa.

The first object of his campaign, then, was the space from Milan to Piacenza; and his first task was to choose the line by which to advance to it.

North Italy is divided into three unequal portions by the Po and the Apennines. And as it would be manifestly unwise to advance on both sides of either of these obstacles, Napoleon had to determine which of the three intervals of space he would operate in.

The space between the Apennines and the sea being narrow, was favourable to an inferior force; and Napoleon's army was inferior in number to the Austrian. The region was mountainous, and therefore the French army, strongest in its infantry, would there meet the enemy, whose great superiority lay in cavalry and artillery, under the most favourable conditions. But successes here must be slow; the Austrians, when pushed back, would constantly be reinforced through the passes of the Apennines; and, in retiring, they would still cover the siege of Genoa. If beaten they would be driven along their proper line of retreat to the shelter of their fortresses on the Mincio and Adige.

In the space between the Apennines and the Po three fortresses existed, those of Turin, Coni, and Alessandria, each a stumbling-block in the way of an advancing army. This, too, was the centre of the Austrian line, and the centre of a line can manifestly be reinforced by the rest more easily than either extremity. The fortresses would bar the way to the French long enough to give the Austrians time to concentrate. By holding the passes of the Apennines they would prevent the French force on the Var from advancing to the relief of Genoa; and, if defeated, they would still, in falling back, cover the siege, and would, as in the former case, retire on their proper line of retreat.

In both these regions, then, the Austrian army would interpose between Napoleon and his object, and, in the second case, with great advantages for opposing his advance. Moreover, it was a part of his plan that his insufficient numbers should be recruited by a detachment sent from Moreau's army on the Danube. The road from thence to the French frontier of Italy was long and difficult, and the junction of this co-operative force could not be hoped for in time to be effective.

In the remaining space between Switzerland and the Po, the Austrians, besides being far weaker in numbers than at any other part of their line, were most widely extended; and no fortresses existed here. This space, therefore, in which lay the most direct road to Milan, offered the most favourable conditions; and once at Milan, the main army might be joined by the corps sent by Moreau, which, crossing Switzerland, would descend the St Gothard Pass to Bellinzona. But this region was also by far the most difficult of attainment of the three, sheltered as it was by the Alps, the rugged passes of which, though but weakly guarded, seemed to forbid

the passage of an army. The other parts of the frontier were crossed by the roads which formed the regular communications between France and Italy, while in this northern corner the high mountains, covered with perpetual snow, and passable only by steep and perilous tracks, seemed an insurmountable barrier. But beyond this obstacle Napoleon beheld his object ready for his grasp. Disregarding difficulties, he pushed his troops over the Alps by the Great St Bernard pass, and was at Milan almost before the Austrians knew of his presence in Italy. Joined there by the detachment from the army of the Rhine, he guarded the passes of the Ticino with half his forces facing westward, and with the rest crossed the Po and occupied the road to Piacenza. He was too late to save Genoa, which had been forced by famine to capitulate; but, on the other hand, the Austrians, unwilling to abandon the siege when on the verge of success, delayed the retreat of the investing force, which, by a more rapid march, might have held the south bank of the Po against the French, and secured the road there by which to regain Mantua. Thus the capture of Genoa only assured the defeat of the Austrians by depriving them of their one chance of escape. Cut from their line, they were forced to fight at Marongo with their faces to their proper rear, and, when defeated, nothing remained for them but to capitulate.

Political elements in selection.

But the selection of a line is not decided always on military grounds alone. Political considerations frequently complicate the problem. That which is of most importance is the effect which the war may have on the policy of nations whose territories are between, or adjacent to, the frontiers of the belligerents. In the wars of the French Revolution, Austrian armies were sometimes forced to hold the line of the Rhine, when good military reasons would have dictated a different course, because of the effect which would certainly be produced on the German powers bordering on the river—Baden, Wirtemberg, &c.—by leaving them uncovered. In the campaign of Jena, the Prussian army would have found the Elbe a secure and convenient line of defence, but Saxony and Hesse-Cassel would be thus left unprotected, whereas Prussia by covering their territories with her army, would secure their co-operation and add their contingents to her numerical force. For that reason she was induced to take up a line which was the cause of all her disasters. At the outset of the war with Russia in 1854, the first design of the Allies was to engage their armies

in the defence of Turkey south of the Danube; and when the Turks, single-handed, beat off the invaders, it seemed most natural that all the Allied forces should combine to carry the war beyond the Danube. But in such a case it became of primary importance to consider what side Austria would take, because her position on the flank of what would then be the theatre of war gave her the power of decisive action. Her policy was a question for the Allied Governments to consider, and the result of their deliberations was to transfer their armies to the Crimea.

Demanding, then, as this question does, diplomatic as well as military sagacity, it will be most effectually solved when the chief of the State combines the characters of ruler and soldier; and it is not the least of the advantages which a military autocrat, like Frederick or Napoleon, possesses in war, that all the circumstances are apprehended by a single mind, and the decision has all the force and coherence which unity imparts. But when generals are commissioned by their governments to execute warlike enterprises, the questions which depend chiefly on diplomacy must of necessity be solved by statesmen, who, having thus given to the campaign its original impulse and direction, will do well to leave the formation and execution of the military plan in the hands of the general. In practice, however, it is often difficult to reconcile military with political considerations. Thus in 1866 the success of von Moltke's plan was seriously endangered by the delay which was forced on him, for political reasons, by the Prussian Government. In 1870 the disaster of Sedan was caused by the French Government insisting, for political reasons, on MacMahon's movement towards Metz. In war ultimate political success must depend on military success, and the policy which insists on unsound military measures is likely to defeat its own ends. On the other hand, in framing a plan of campaign a general must make full allowance for political exigencies. The failure of McClellan's operations in 1862 is a warning of the danger a general incurs when he attempts to carry out a plan to which his government accords only a half-hearted support.

Selection
of theatre
should rest
with the
government,

execution of
the campaign
with the
general.

The value of railways is so great in assisting both the assembly and the supply of modern armies, that points of concentration and lines of advance are now, to a great extent, governed by the existing railways.

Influence of
railways on
the choice of

a line of
operations.

The circumstances must be very extraordinary under which it could be profitable to select a theatre of operations without railway facilities rather than one where these exist. In recent campaigns detachments have, no doubt, been employed for special purposes at some distance from a railway, but the operations of the main armies have been restricted to areas in which railways could be made use of, and this fact is to be noted not only as affecting our own choice, but as enabling us to foresee the enemy's probable points of concentration and lines of operations.

PART III.

OPERATIONS ILLUSTRATING THE RELATIONS BETWEEN THE FRONTS OF OPPOSING ARMIES AND THEIR RESPECTIVE LINES OF COMMUNICATION WITH THEIR BASES.

CHAPTER I.

OBSERVATIONS ON THE MODE OF TREATING THE SUBJECT OF THE WORK.

THE Theatre of War is the province of Strategy—the Field of Battle is the province of Tactics. All operations must ultimately rely for success upon power of fighting; for it is of no avail to conduct an army into situations which it cannot maintain in battle. It is the object of Strategy so General
to direct the movements of an army, that when decisive collisions occur object of
it shall encounter the enemy with increased relative advantage. If two strategy.
armies advance towards each other till they meet, both equally covering their own communications, and equally ready to concentrate for action, it is evident that strategy has no share in the result; for all that has been done is to bring them face to face, and leave it to force or tactical skill to decide the issue. But when the movements of one of two armies have been so directed as to increase the chances in its favour, by forcing the enemy either to engage at a disadvantage, or to abandon territory

Kinds of advantage to be attained by strategy.

under penalty of worse disaster, there is proof of a power which differs from the mere ability to fight. The purely military advantages to be attained by strategical operations are of two kinds: 1st, *The Probabilities of Victory*; 2nd, *The Consequences of Victory*. Two armies may incur equal risk of disaster in case of defeat, but the chances of victory may be greatly in favour of one. Thus, of armies whose communications are equally secure, one may be scattered while the other is concentrated within striking distance, and the first may thus be defeated piecemeal. Or the probabilities of victory may be evenly balanced, while the consequences of defeat may be much more disastrous to one than the other. For instance, if a French army have placed itself between an Austrian army and its base without relinquishing its own communications, and the Austrian has no alternative but to break through, in the battle which ensues the chances of victory may be evenly balanced (in fact, at Marengo, a case in point, the probabilities of victory were on the side of the Austrians); but defeat will be to the French army merely defeat—to the Austrian it will be ruin. A general may succeed in combining on his own side both these kinds of advantage, and the triumph of strategy is complete when the commander of one of two originally equal forces succeeds, by the combinations of the campaign, in bringing his adversary's army into a position where the chances of victory are greatly against it, and where defeat will entail disasters beyond the loss of the battle.

Particular objects of strategical movements.

In the following chapters strategical movements will be considered as having the following objects: 1st, *To menace or assail the enemy's communications with his base*; 2nd, *To destroy the coherence and concerted action of his army, by breaking the communications which connect the parts*; 3rd, *To effect superior concentrations on particular points*. And as, whichever mode a general may adopt, it is essential that he should always maintain his own communications with his base, so the part of the subject first discussed will be the circumstances by which the security of those communications will be specially affected.

It is evident to the least instructed that the presence of rivers, mountains, and other obstacles in the theatre of war, must exercise a powerful modifying influence on the operations. A part of the work is therefore devoted to the discussion of OBSTACLES—the nature of the difficulties

they interpose, and their effect in various circumstances. It may be said, that as no theatre of war can well be devoid of such features, this chapter should have preceded the others; but it has been judged otherwise, for these reasons: that they greatly complicate and increase the difficulty of appreciating campaigns, and that campaigns illustrative of the broader principles of strategy may be found which are intelligible without reference to the obstacles; whereas, for the appreciation of obstacles, it is quite necessary to have an idea of the relations between the fronts of hostile armies and their respective lines of communication. These and other relations are therefore discussed first in the simplest form practicable—then the obstacles; and the student ought after that to have a sufficient knowledge of general principles to enable him to consider for himself the merits of any ordinary strategical operation.

Military problems involving obstacles are deferred.

Battles, besides being incidents which may occur at any period of a campaign, bear also in their objects and manœuvres a close relation to the operations of strategy; and in a course of lectures on military art it is well to treat of both subjects simultaneously; but in this work it has been thought better to keep them separate, and to give strategy the precedence. In the strategical chapters, therefore, battles will be adverted to merely as incidents in the campaign.

Battles.

The plan of arrangement followed in the narrative of campaigns is one that is recommended to all students of strategy. The circumstances which it is necessary to know in order to understand the position of the opposing armies at the outset of a campaign, are first briefly recounted; then the fronts, the bases, and the lines connecting them are defined; next the plans of the generals on each side are discussed. Then the operations of the campaign are related in the simplest and most methodical form, without comment; for not only is the course of the operations rendered clearer by keeping the commentary separate, but the student is thus at liberty to exercise his own faculties in accounting for the movements. Lastly, the situation at each stage is commented on; and as every campaign furnishes examples of many points of war besides that which it has been specially selected to illustrate, these are noted and discussed. Deductions, which seem to be of particularly wide application, are presented in a definite form for future use; but nothing is offered in that shape, unless it is so far supported by fact and argument

Plan followed in narrating campaigns.

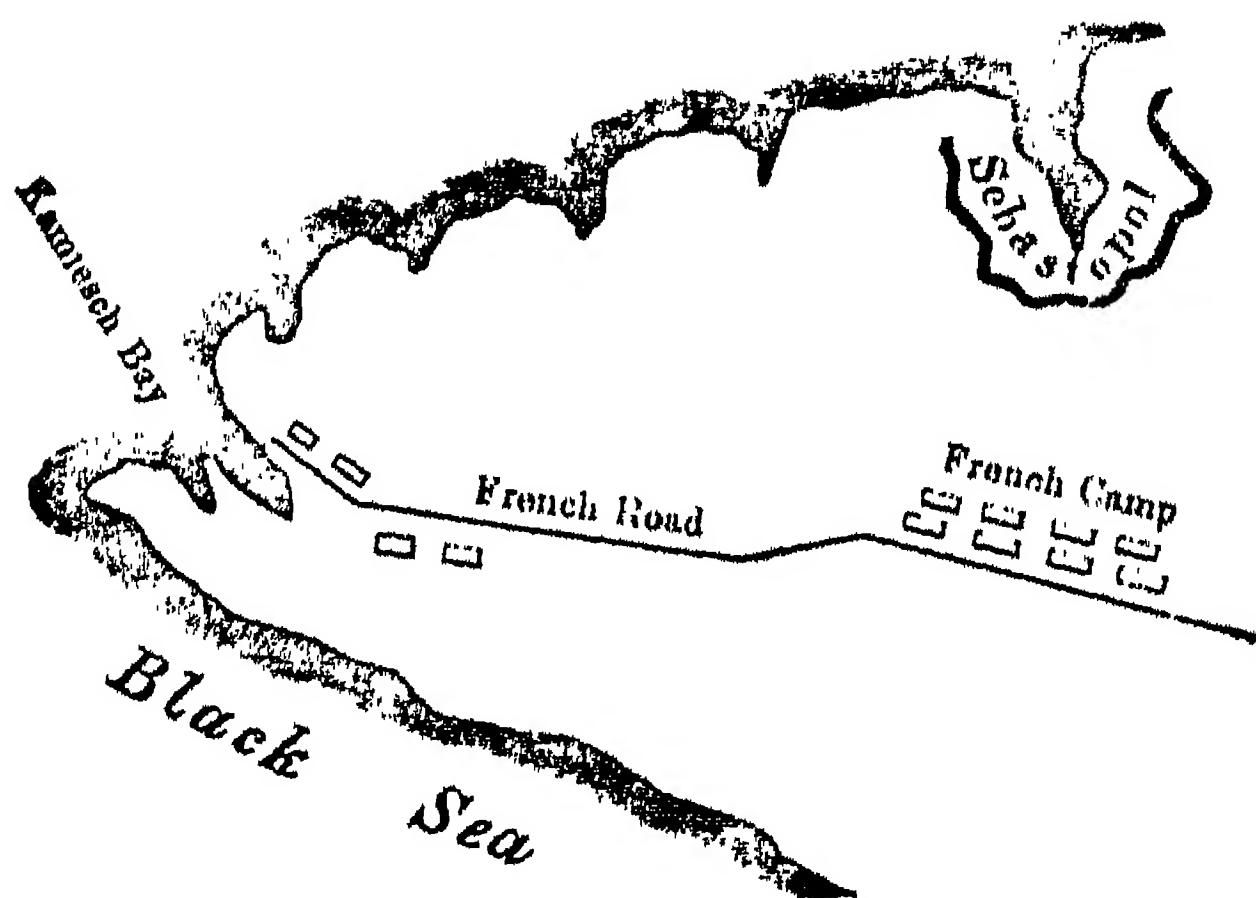
as to have a title to the reader's assent. Nothing is more common than to find in writings on military matters reference to "the rules of war," and assertions such as that some general "violated every principle of war;" or that some other general owed his success to "knowing when to dispense with the rules of war." It would be difficult to say what these rules are, or in what code they are embodied; and an inquirer who is somewhat puzzled, perhaps, to understand how the highest proficiency can be displayed in a science by defiance of its principles, had better resolve to base his own conclusions upon fact and reason alone, when he will probably discover that such criticisms have only very vague ideas for their foundation.

CHAPTER II.

THE EFFECT OF OPERATING ON A FRONT PARALLEL TO THE
LINE OF COMMUNICATION WITH THE BASE.

REVERTING to the account given in Chapter IV. of the positions of the Austrian and French armies at Solferino, we shall see that their fronts were parallel to each other, and that each covered its own lines of communication with the base. Had the French been defeated they would have retired on the roads by which they had advanced, and from which it was not in the power of the Austrians to sever them; and when the Austrians were defeated they retired to the other side of the Mincio on the roads by which they had quitted the river. There was no exhibition on either side of strategical art; none of the movements on either side since the battle of Magenta had altered the chances of success; and the result was altogether due to tactics. To find illustrations of the power of strategy to affect an army through its communications, we must seek elsewhere than in cases where the fronts of the armies are perpendicular to their lines of retreat.

For convenience of supply, nothing can be better than a road which, coming direct from the base, passes along the rear of the army throughout its length. The harbour of Kamiesch, in the Crimea, was the base of the French army, from whence a road was made traversing the rear of the camp. Thus depots might be created at any point, and every part of the army was equally near to its supplies. Had the army changed front to the right upon its centre so as to be perpendicularly across the road, the wings would no longer have been supplied with the same facility as before.



So far, then, it is convenient for an army to operate parallel to its communications with the base. But is it *safe*? Is it a matter of indifference whether the front of an army is perpendicular or parallel to the line in question?

The campaign of Novara, in 1849, between the Sardinians, under their king Charles Albert, and the Austrians, under Marshal Radetzky, has been selected to illustrate this matter, because it was very brief, is clear as an example, and free from any difficulties which a complicated theatre of war would entail at this stage on the reader, since it took place in the space between the Sesia and Ticino, which was equally open to the movements on both sides, for the Terdoppio and Ogogna streams are inconsiderable obstacles.

CAMPAIGN OF NOVARA, 1849.

(Maps No. 12 and No. 5.)

When hostilities (suspended after the campaign of 1848) recommenced, the opposing armies faced each other on the Ticino, a deep swift stream about 70 yards wide. On the 12th March the Sardinians gave notice that the armistice then existing was to terminate on the 20th of the same month.

Their army in the space which was the theatre of operations formed six divisions, with two brigades detached. The King was the nominal leader, but the real command was vested in a Pole named Chzarnowsky.

Charles Albert had invited several of the best-known French generals, Bedeau, Lamoricière, Changarnier, and Bugeaud, to take the command, but all had declined. Chzarnowsky was supposed to have been recommended from Paris. He had served on the Russian staff against the Turks in 1829, and had taken part in the Polish insurrection of 1831, rising from the rank of lieutenant-colonel to the command of a division in a few months. There was nothing apparent in his career to justify the slight thus cast on the claims and abilities of the Sardinian generals, who now commanded divisions under his orders as follows:—

1st division	.	Durando	.	.	.	Vespolate and Vigevano.	Disposition of the Sar- dinians.
2nd "	.	Bes	.	.	.	Cerano and Casalnuova.	
3rd "	.	Perrone	.	.	.	Romentino and Galliate.	
4th "	.	Duke of Genoa	.	.	.	Trecate and Buffalora.	
5th "	.	Ramorino	.	.	.	La Cava.	
Reserve	.	Duke of Savoy	.	.	.	Near Novara on the Mortara road.	

Of the two detached brigades, one under Colonel Belvedere was near Piacenza, guarding the right bank of the Po from an advance in that direction. The other under General Solaroli was at Oleggio, on the left of the Sardinian line. As the operations were all on the left bank of the Po, Belvedere's brigade may be left out of the reckoning. In all, the Sardinians on the Ticino numbered about 65,000 men and 140 guns.

The point to which all the operations of the Sardinians must specially refer was their capital, Turin. It no doubt formed their real base of supply, though they might also depend in a secondary degree on Alessandria. The roads connecting them with Turin were—

Vigevano-Mortara-Casale.
Trecate-Novara-Vercelli.

The fifth division could communicate either with Mortara through Garlasco, or with Alessandria by Casatisma across the Po.

We may conclude that their immediate depots of supply were in Mortara and Novara, and that these were in part filled from the produce of the surrounding district; that there were more permanent depots with reserves of ammunition in Vercelli and Casale, which were at once at a convenient distance, and protected by the Sesia; and that the great magazines were at Alessandria and Turin.

¹ All distances are given in English miles.

Austrian
front, base,
and commu-
nications.
(See Map
No. 5.)

The Austrian army, commanded by Marshal Radetzky, who had been a colonel on the staff at the battle of Marengo forty-nine years before, extended along the other bank of the Ticino from Turbigo on the right to Pavia on the left. Its base was the space between the Mincio and Adige guarded by the fortresses of the Quadrilateral. The roads between the front and base were

Milan-Lodi }
Pavia-Lodi } Lonato-Peschiera.
Pavia-Pizzighitone-Cremona-Mantua.

A great road leads from Milan to Peschiera by Brescia, but the populations of the towns there were very disaffected; and ten years afterwards the Austrians did not use it in retreating from Magenta. It is therefore probable that Radetzky did not rely on it.

For the immediate supply of his right he would depend on Milan; for that of his left on Pavia; and Crema, Pizzighitone, and Cremona would form an intermediate line of magazines.

Nature of the
theatre.

The country between the Sesia and Ticino is much cut up with canals of irrigation; and the mulberry plantations, where vines are trained in festoons from the trees, and the deep soft rice-fields, are serious obstacles to the movements of troops, especially of cavalry, who can rarely find there ground on which to act in a body; hence the columns moving there must chiefly keep the roads, which are bordered with wet ditches, and often pass along causeways raised above the swampy fields.

Plans of
campaign

By the Sardinian leaders it was considered an object of the first importance to advance on Milan and raise an insurrection there. It was expected that as soon as the advance on the capital should be begun, Radetzky, as in the previous year, would fall back at once towards his base. Should he halt on the Adda, he was to be attacked at Lodi. But it was considered more probable that he would retire beyond the Mincio.

On the Piedmontese left, Solaroli's brigade was to operate against the extreme Austrian right in the hilly country about Como and Varese; much as Garibaldi's corps acted in 1859. Five divisions were to move on Milan; the remaining one (the 5th) at La Cava, was to seize if possible the island of the Ticino opposite Pavia; if all went well, it was to push on and attack Pavia itself.

It was expected that these operations would be executed against an enemy who would either retreat or stand on the defensive. There was a third alternative—namely, that he would assume the offensive. This, though not expected, was provided for in the Piedmontese plan. Should the enemy advance by the line Milan-Novara, he would be met by the mass of the Piedmontese army; should he cross from Pavia, the 5th division was to fall back either on San Nazzaro or on Mortara, according to the direction of the attack, retarding the Austrian march till Chzarnowsky, directing his other divisions down the right bank of the Ticino, should attack the Austrians in the difficult intersected country in the angle of the two rivers, while some of their forces might still be on the other bank.

Radetzky, confident in the superiority of his troops, had resolved, on his part, on an offensive campaign of the most decisive kind. To this end he had begun before the termination of the armistice to assemble his army (5 corps in all, numbering 70,000 men and 180 guns) about San Angiolo, on the road between Pavia and Lodi, 4000 men being left to garrison Milan and prevent an insurrection in the city. No care was taken to conceal the intention of an advance on Turin, for it was announced in the proclamations of the Marshal; and no provision was made for converting the offensive into a defensive campaign (as in the case of the enemy), for, except the garrison of Milan, and some detachments left to watch the passes of the Ticino, the whole army was directed to concentrate on San Angiolo,—the point of passage, however, being kept secret. There are Passages of
the Ticino. passages over the river at Sesto Calende, Oleggio, Turbigo, San Martino, Vigevano, Bereguardo, and Pavia. Radetzky meant the main body to pass at Pavia. The detachments along the Ticino moving down the bank were to cross at Bereguardo. The march was to be direct on Mortara; on arriving there, the many roads of which the town is the centre would enable Radetzky to adapt his movements to circumstances, whether against the Sardinian capital or the Sardinian army.

Both armies, then, were about, simultaneously, to assume the offensive, and to that end each was massed on its left on one of the two great roads to Turin.

20th March.—At noon the Austrians, who had thrown two bridges of boats over the Ticino below the permanent bridge of Pavia, began to pass

"Right" (or
"left") bank
—always
looking down
the stream.

to the right bank. It was to provide for such a movement that Ramorino had received his instructions. But that general was no longer opposite Pavia. Intelligence had reached him the day before that the Austrians were passing to the right bank of the Po to attack Alessandria, and that any attempt made by the enemy at the bridge of Pavia would be only a feint. Leaving three battalions on the Ticino, he had carried the remainder across the Po to Casatisma to oppose the movement of the enemy. Such was his defence of his breach of orders; but it did not avail—the court-martial which judged his offence condemned him to be shot.

Austrian
movements.

At the approach of the Austrians, two of the battalions left by Ramorino followed him across the Po; the third retired on Mortara. The Austrians posted a brigade of the 4th corps at the bridge of the Po to prevent Ramorino from recrossing. Their other movements were as follows:—

Pavia to
Zerbolo and
Gropello, 8.

The rest of the 4th corps	marched on	La Cava.
The 2nd corps	marched on	Zerbolo.
" 3rd	" "	Gropello.
" 1st	" "	Zerbolo.

Reserve opposite Pavia, with a brigade at Pavia on the left bank in case of an attack on the Austrian communications on that side of the Ticino.

The detachments which had guarded the length of the river assembled for passage (two brigades) at Bereguardo.

The same day and hour the Duke of Genoa's division, led by the King, crossed the Ticino at San Martino and the canal at Buffalora, and halted at Magenta. Had Chzarnowsky found an Austrian rear-guard on the Milan road he would doubtless have briskly attacked it. But he found no enemy on that road; and as was natural in a general new to command and doubtful of his own plan, he grew nervous and halted for information.

The intelligence which had probably reached him of the concentration of the Austrians on San Angiolo was calculated to confirm him in the belief, which that operation was designed to inspire, that the enemy was retreating beyond the Adda. Fearing to advance, yet unwilling to retrace his steps without positive reason, he suspended his forward movement till at ten that night he heard of the events that had occurred on his right. He immediately ordered—

1st division	}	through Mortara on Trumello.
— reserve		
2nd division	}	on Vigevano.
3rd "		
4th "		

Novra to
Vigevano, 18.

The 2nd division from Cerano, which was nearest to Vigevano, would arrive first, and was to push an advanced-guard to San Siro. Thus the right wing would bar Radetzky's path on Mortara, while the left wing would be ready to fall on his flank. Should this cause the Austrians to halt for concentration during the 21st, Chzarnowsky proposed to extend his wings inward till they touched, and so form line of battle from Trumello on the right to the Ticino on the left, and then to attack the enemy, whose columns were moving in a close country where they would be unable to deploy.

Sardinian
movements
as ordered,

21st March.—The first division, for some unexplained reason, halted just beyond Mortara.

but imperfect-
ly executed.

The reserve was deployed on the Casale road on the western side of Mortara, apparently to guard the line Mortara-Casale from an attack by the San Giorgio road.

On the left, the advanced-guard of the 2nd division met at San Siro at two in the afternoon, the advanced-guard of the 2nd corps marching on Gambolo, and was pushed back on Sforzesca. The brigades from Bereguardo reinforced the Austrian advanced-guard. A Sardinian brigade came up on the other side, and an action ensued in which both claimed the advantage. The 3rd and 4th Sardinian divisions did not arrive at Vigevano till evening.

Radetzky's orders for the 21st were these:—

2nd corps	from Gropello by Trumello, through Mortara.
1st "	from Zerbolo by Gambolo, on Mortara.
3rd "	from Gropello by Trumello, to occupy Mortara.
4th "	from La Cava by San Nazzaro and San Giorgio, on the left of Mortara.
Reserve	by Garlasco on the rear of Mortara.

Austrian
movements
as ordered.
Gropello to
Mortara, 14.
La Cava to
S. Giorgio, 21.

In executing these movements, the head of the Austrian 2nd corps, leading, came upon Durando outside Mortara. The Sardinian division was badly posted, and the reserve was forced to file through the narrow streets in order to reinforce it. Before that tortuous movement could be accomplished, Durando was defeated, and the Austrian corps pushing

Austrian
movements
as executed.

on, drove both divisions out of Mortara on the roads of Robbio and Novara.

The real positions of the Austrian corps on the night of the 21st were these:—

Two brigades from Bereguardo near Sforzucca.
2nd corps in Mortara.
1st " " Gambolo.
3rd " " Trumello.
4th " " San Giorgio.
Reserve, " Gropello.

That night Chzarnowsky, hearing of the disaster to his right wing, resolved to concentrate on Novara.

22nd.—Sardinians concentrating on Novara.

Austrian 2nd corps towards Vespolate.
The rest closed on Mortara.

23rd.—The Sardinian wings had met and taken position outside Novara in the angle between the Treceate and Vercelli roads.

Mortara to
Novara, 18.
Mortara to
Borgo
Vercelli, 18.

Austrian 2nd corps, followed at intervals by the 3rd and reserve, on Novara.
1st corps by Robbio on Borgo Vercelli.
4th " remained at Mortara.

Results of the
Austrian
operations.

The Austrian 2nd corps attacked on arriving near the enemy. It fought singly with loss till supported successively by the 3rd, the reserve, and the 4th corps—the 1st being too far off to take part in the action. The Sardinians were defeated at all points, and pushed off the Vercelli road; masses deserted during the night; and next morning the Austrians, advancing through Novara, pursued along the roads of Momo and Oleggio. The same night the King abdicated, and Victor Emmanuel, the new sovereign, concluded an armistice with the victor as the preliminary of peace.

COMMENTS.

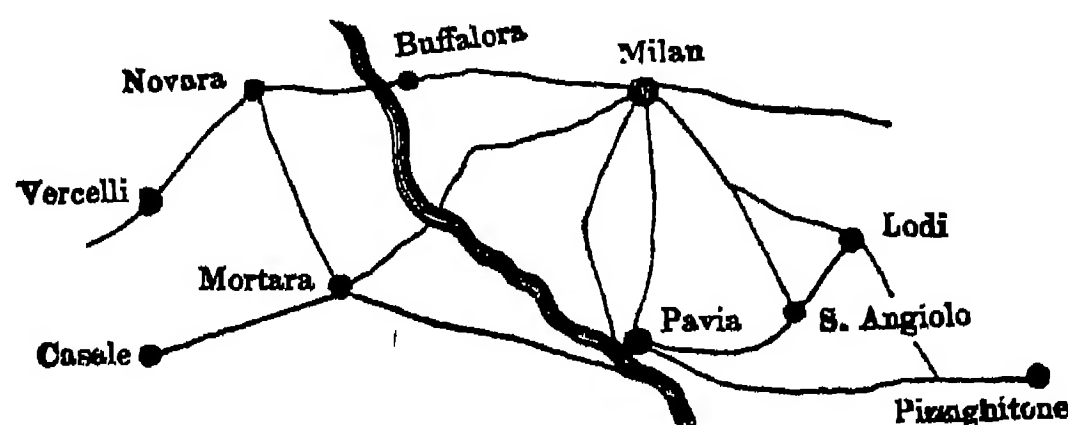
At the outset the two armies, by the positions of their fronts on the Ticino, covered the two lines which they respectively possessed to their bases. What then were the circumstances which so completely changed the relations of their fronts and lines in favour of the Austrians?

Each army concentrated on its own left, the Austrians on the Pavia-^{Pavia to} Mortara line, the Sardinians on that of Novara-Milan. The aim of ^{Mortara, 23.} Radetzky was Mortara, the object of Chzarnowsky was Milan, and from their points of concentration they would have about the same distance to traverse to their objects.

But let us suppose that each had executed his design; that the Austrians had concentrated at Mortara at the same time as the Sardinians concentrated at Milan. The Austrians would have actually been on one of the two Sardinian lines of communication, namely, that of Mortara-Casale-Turin. And they would be within a single march of the second and last line, that of Novara-Vercelli-Turin.

On the other hand, the Sardinians would still be a long march from the first Austrian line at Lodi, and a considerable distance from the second Austrian line of Pizzighitone. ^{The Ticino to Milan, 20. Milan to Lodi or S. Angiolo, 20.}

Thus the circumstances were not reciprocal. If Chzarnowsky were to continue to advance, his own communications would be absolutely lost, while he was still only aiming at the enemy's. In fact, in the first movement, by which each uncovered to a certain extent one line to concentrate on the other, the Sardinian communications were compromised in far greater degree than those of the Austrians, and this was owing to the direction of the lines of communication through the theatre of war. To render this more easily intelligible, an abstract of the essential features of the situation is given in the accompanying sketch; and students will find it useful to make such in other cases, whenever they have ascertained what the essential features are.



The following points are to be specially noted with reference to the movement of each army against the communications of the other:—

1st, Its comparative *directness*. The Austrians had the shortest possible line from Pavia to Mortara. The Sardinians, on the contrary, must perform a long circuit through Milan to Lodi or S. Angiolo.

2nd, Its comparative *security*. To secure their flank the Austrians needed only to guard the small angle between the river and the Pavia-Mortara road, in which there was only one avenue whereby they could be attacked, namely, that of Vigevano. On the other hand, in order to secure the Sardinian flank from an attack from Pavia, it would have been necessary to guard the wide angle, of which Milan is the apex, and the roads from thence to Lodi and Buffalora are the sides.

The Polish general did what generals will always be found to do under such circumstances—he abandoned his designs upon his enemy's communications in order to secure his own. To this end the new front on which he wished to place his army was that of Vigevano-Trumello. By so doing he would cover both his lines so long as he could maintain his front. And if his right wing could maintain itself between Trumello and Mortara, while his left defeated the right wing of the enemy, he would actually sever the Austrian communications. If his right held its ground while his left was defeated, still the disaster would not be fatal, since the beaten wing could make good its retreat to the Sesia, while the right held Mortara, and they might reunite behind the river. But the most disastrous circumstance would be that the right wing should be defeated, whether the left did or did not hold its ground; for, by gaining Mortara the enemy would be nearer to the last line of retreat at Vercelli than the left wing was. In fact, the left wing would increase its peril by maintaining its position.

The great object of each general must then be that his right should not be defeated while his left should be successful.

Let us see what steps Radetzky took to secure this result.

Radetzky's
movements
explained.

Beregardo to
Pavia, 9.

It was essential to carry his army as soon as possible to the other bank of the river, lest a part should be attacked while isolated. To this end he threw two additional bridges. Between 50,000 and 60,000 men occupied about fourteen hours in crossing. Had they passed by one bridge the operation would have occupied nearly two days. The detachments crossed at Bereguardo: 1st, because that was a point which they would reach sooner than Pavia; 2nd, because it gave an additional point

of passage; 3rd, because they would there be within easy reach of aid from the main army. And they to a certain extent covered the army by menacing the flank of an enemy attacking from Vigevano.

To hasten the advance it was necessary to use all the roads available, but it was also necessary to keep the columns that moved on them ready to concentrate for battle. One corps, therefore, moved by the line Zerbololo-Gambolo, and two, followed by the reserve, by Pavia-Mortara. Had all moved by the latter they would have been too scattered to form an effective line of battle, and should the enemy pierce any point of it, say Garlasco, all the troops beyond would be cut off. As it was, it might be expected that the corps and the two brigades on the right would be able to oppose the enemy on the side of Vigevano till the others from the great central road could come up, supposing the enemy were to throw his whole weight on that side; and, if defeated in a battle there, the Austrians could retreat on Pavia by Gropello and Zerbololo. There was little risk while the four corps were within supporting distance on the two roads. Garlasco to Sforzesca, 5.

But the march on Mortara was further hastened by moving one corps by the line San Nazzaro-San Giorgio. That movement, however, entailed a certain risk, for the corps would be too distant to take part in an action between Garlasco and Vigevano; and should the main army, thus weakened by a fifth, be defeated, the corps would be cut off. On the other hand, its advance threatened the line Mortara-Casale; and should the Sardinians advance to Trumello it would be in a position to cut them from Mortara. This movement, then, probably caused both Durando's halt, and the bad disposition of the reserve, on the 21st. Lomello to Sforzesca, 14.

The arrangements, then, so far, were very well suited to the object. The advance on Mortara could be rapidly continued, and the right flank was strong against attack. And on the 21st, after the 2nd corps had reached Mortara and was engaged there, and the 1st corps had reached Gambolo, still the Sardinian left wing would have found it difficult to penetrate to the Pavia-Mortara road. For in first line it would have encountered the 1st corps at Gambolo, and the brigades at San Siro; in second line the 3rd corps and reserve; in all, 40,000 men. If it had advanced on Trumello, its way would have been barred by the first line, supported, during the engagement, by the second; if it had advanced on Garlasco it would have been opposed at first by the brigades, which

would have been supported by the second line, whilst the 1st corps would fall on its flank. Chzarnowsky could scarcely have hoped to break through these 40,000 men, with the 30,000 which he might have assembled at Vigevano on the afternoon of the 21st.

Nevertheless, as will presently be shown, Radetzky's dispositions for the security of his advance were not perfect; because he might, in his orders for the 21st, have given a direction to some of the troops on his right which would have been equally good in the actual, and far better in the possible circumstances.

We have seen that the line which the Sardinians really occupied was that of Vigevano-Mortara. This line is parallel to the line Novara-Vercelli. And when the Austrians had driven the right wing from Mortara, their left was nearer to the Vercelli road than the Sardinian left. Using reasonable speed, the Austrians would reach it first. Thus the fact that the front of the Sardinians was considerably in advance of their last line of retreat did not prevent, but only postponed, the catastrophe.

It was impossible for Chzarnowsky, after he knew of the loss of Mortara, to continue the offensive movement of his left wing. For not only must he contend with the Austrians in his front, but the corps at Mortara might turn back and hem him in against the Ticino. But a manœuvre that really was open to a general of unusual readiness and promptitude was to move the left wing from Vigevano direct on Mortara, and break through the Austrian corps there, thus balancing the amount of disaster, and recovering the communications with Casale. And this design, though scarcely to be expected from an inexperienced leader, was said to have been actually entertained by Chzarnowsky. At all events the attempt was practicable, and though the boldest, it was also the most prudent course; and as such it should have been foreseen and provided for in the plans of Radetzky. Now his right wing at San Siro, or Sforzesca, did not guard his left from such an attempt. But supposing his right wing in *Vigevano*, it is at once seen how much additional security is conferred upon his position. His wings would thus have been in connection by a straight and good road—he would have precluded the enemy from attempting any but front attacks; and he would have been equally ready to concentrate on Mortara. His 1st corps, therefore, instead of continuing to move on Gambolo during the 21st, leaving it to the

Mortara to
Vigevano, 8.

advanced-guard and the two brigades to oppose the Sardinians, should have been pushed on Vigevano supported by the 3rd corps, and, if necessary, by the reserve.

No definitions nor explanations would have availed to prove the superior importance which certain points in a theatre derive from their position, so clearly as the examples of the two towns Mortara and Vigevano; the former giving access to all the lines which the enemy could use—the latter giving, while occupied, absolute security to the Austrian advance.

In a greater degree this is also true of the points Pavia and Milan. When the Austrians were concentrated at Pavia, they occupied a centre from whence to move by short radii to all possible points on the lines of operation, whether for offence or defence. And had the Sardinians held Milan at the outset, it would have afforded them reciprocal advantages.

On the 23rd, Radetzky knew that the enemy must be either at Novara or making for Vercelli, but probably at Novara. Therefore he directed three corps thither, and sent one corps by Robbio to close the road. Supposing the enemy to be making for Vercelli, that single corps would be sufficient to arrest their progress till the reserve from Mortara could move to its support, while the other corps, crossing the intervening space, would come on the flank and rear. When the leading corps found the enemy at Novara, all were directed thither; but that which had been detached on Robbio did not arrive to share in the action. Whatever risk there might be in the absence of a fifth of his army from the battle-field was thus incurred by Radetzky.

It may be asked, Why did he not direct his whole army on Vercelli, since he would thus effectually cut the enemy from the base without incurring the risk of dispersing his corps? But had he done so, he would have opened the Novara-Mortara road to the Sardinians, who, crossing his rear, might have passed the Po and gained Alessandria. The risk of this was prevented by moving his several corps along the road to Novara.

Finally, the Sardinians, to meet the attack, formed on a front parallel to the Vercelli road, with their flank on the road. Beaten in the battle, they naturally and inevitably retired to their rear; they thus lost the only road that led to Turin, and their defeat was absolute and decisive.

On the other hand, had the Austrians been defeated in the battle, they,

retiring to their rear, would have followed the road by Mortara to Pavia, and could either have defended the Ticino, or continued their retreat to the Mincio.

General deductions.

With reference, then, to the subject of this chapter, it may be assumed, as a step towards future investigations—

1st, That when one of two opposing armies is operating on a front parallel to the line communicating with its base, and the other on a front perpendicular to the line communicating with its base, the latter has acquired a great advantage over its adversary.

2nd, The advantage is of the same kind whether the armies are concentrated or operating on extended fronts.

3rd, The distance of the front of the army from its parallel line of communication, when the front is extended, and when the space between is devoid of defensible positions, does not prevent, but only postpones the catastrophe.

4th, That it must be a great error to place an army in such a position, without reasonable prospect of a counterbalancing advantage.

But it will be demonstrated in the following chapter that the disadvantage is of a kind that will be annulled by a tactical success, and that it does not necessarily render a tactical success less probable.

In order to avoid the circumlocutory phrase, "an army operating on a front parallel to the line communicating with its base," let us in future say, "forming front to a flank." The term "flank position" would not answer the purpose, since it properly belongs to an army concentrated in one space, and not extended on a wide front.

CHAPTER III.

CONTINUATION OF THE SUBJECT.—CAMPAIGN OF SALAMANCA.

(Map No. 1.)

As an instance of success achieved in the position which has been described as so unfortunate, let us take the case of Wellington at Salamanca.

The hostile armies in July 1812 faced each other on the Douro. Marmont's line, in case of retreat, lay through Valladolid and Burgos. Wellington could regain his base in Portugal only by the road from Salamanca to Ciudad Rodrigo. The French front extended from Toro on the right to the Pisuerga on the left, and was there thrown back along the course of the river. Wellington's right was at Rueda, his left on the Rueda to the Guarena. Thus each army, in the existing position, covered its commu- Guarena, 23. nications with its base.

Marmont, on the 15th and 16th, suddenly moved his army upon Toro, and began to cross there. Wellington knew of this movement on the 16th, and prepared to meet it by uniting his centre and left at Canizal during the night.

Marmont, then, threatened Wellington's left, and by persisting in an advance from Toro upon Salamanca he might reach that place as soon as his adversary. Wellington must then break through or be lost. He would attack the French on the march; they would form in order of battle to meet him, and the fronts of both armies would be parallel to the road from Toro to Salamanca. Both armies would be in a flank position—either would be ruined by defeat. A French victory would cut Wellington from Portugal, and throw him back on the Castilian mountains and the army of King Joseph, who was advancing from Madrid to join Marmont. An English victory would cut Marmont

from Toro, and drive him back on the Douro, and the difficult hostile country of the *Tras-os-montes*.

Toro to Tordesillas, 23.

Tordesillas to Nava del Rey, 13.

It was not Marmont's design to bring matters to such a desperate issue. His movement on Toro had been a feint to induce Wellington to make a corresponding movement, and so leave the bank of the river at Pollos and Tordesillas open. He countermarched on the 17th behind the river, crossed it at those two places, and occupied Nava del Rey, where his whole army was concentrated that night.

The Trabancos to the Guarena, 10.

Wellington, doubting his antagonist's object, had left his right on the Trabancos, to guard against such an operation as that which Marmont had effected. At midnight the English general, then at Toro, heard that his right wing on the Trabancos was in presence of the French army. As he could neither keep it there till the centre and left could march to its support, nor hope to withdraw it safely to any considerable distance, he adopted the obvious measure of concentrating his army on an intermediate line of defence. At daybreak his right retreated towards the Guarena, closely followed by the heads of Marmont's columns: it reached and crossed the river—met there the rest of the army; an attempt of the French to cross was defeated, and they remained facing each other throughout the 19th.

Both now covered their lines of retreat. But, on Wellington's right, roads led to the fords of Huerta and Alba on the Tormes, and thence to his line of communication below Salamanca. Wellington did not expect Marmont to attempt to turn his right by that line, because he believed the fort which guarded the ford at Alba to be held by a Spanish garrison, and he therefore remained covering Salamanca, a point which was very essential to his campaign; for should the French regain it with its forts and bridges, Wellington's first step towards resuming the offensive must be to attack Marmont, thus strongly posted on the river, in order to open the road for a further advance.

The English leader therefore held his position, covering Salamanca. But Marmont—knowing, what Wellington did not know, that the Spanish garrison had been withdrawn from Alba—concentrated his army on its left, on the 20th, moved in several columns up the Guarena, and crossed it, moving to the Tormes. The stroke was aimed directly at Wellington's communications, and he was constrained to follow the movement, march-

ing parallel to his adversary on an opposite range of heights within musket-shot. All the country between the Douro and Tormes appears to be so open that the columns were not restricted to the roads, but moved freely as they do at Aldershot. The march was conducted by both generals with such regularity, that though on each side vigilant eyes watched for an opening to attack to advantage, neither found it. Such movements can be made only by practised and self-reliant leaders.

At Cantalpino the British found themselves outmarched and outflanked. Finding it impossible to be first on the river, Wellington fell off towards some heights on his right, while Marmont's left reached Huerta. Huerta from the Guarena, 18.

Napier tells us that on the evening of this day Wellington was deeply disquieted. He might well be: for the French had proved their superiority in marching power; and if the parallel march of that day were repeated, they would strike a lower point than Wellington on the Ciudad Rodrigo road, and sever his communications. On the other hand, if he retreated precipitately he would have the mortification of seeing his adversary regain Salamanca. With these menacing alternatives before him, he took position on the hills covering Salamanca on the 21st.

On that day Marmont began to cross at Huerta and Alba, and placed a garrison in Alba, his leading divisions encamping at Calvariza-Arriba. Wellington met this movement by crossing also, at Santa Marta and Aldea Lengua. On that night Wellington's right was at the village of Arapiles, his left at Santa Marta, where a division remained on the right bank covering Salamanca from a possible advance on that bank by Marmont. The French left had been extended, threatening the Ciudad Rodrigo road.

It may appear that Marmont in thus manœuvring to his left was to a certain extent uncovering his own communications. But in reality he ran no risk. For though the great road, the only one, back to France lay through Valladolid, yet French armies occupied both Madrid and Andalusia, and the King was then moving through the mountains towards Blasco to co-operate with him. Thus supported he might feel confident of regaining the Douro.

In the series of manœuvres just described, one skilful general had sought to assail and the other to defend a line of communication. And the strategical advantage remained entirely with the French leader,

who had pressed his antagonist back from the Douro to the Tormes, and now compelled him to form front parallel to his line of retreat. But to gather the fruits of his success he must still defeat his enemy in battle. Next day, however, saw Wellington win the battle of Salamanca, and with the victory he not only regained all the ground of which the previous operations had deprived him, but by the mere impetus of success, and without another engagement, his left wing pushed the beaten army back on Burgos, while his right chased the French Court from the Spanish capital. Nevertheless, the disparity of loss between the victors and vanquished at Salamanca was not considerable. Marmont's army, far from being ruined, presently made head again and turned on its pursuers, following them once more to the Tormes.

These examples will probably be sufficient to illustrate the case of a flank position in an open country. The general who by manœuvres or otherwise places his enemy in such a position, is within one vigorous stride of decisive success; and if his confidence in himself and his troops be such as to render him eager to fight for an adequate object, he must esteem himself fortunate indeed to be able, at no more than ordinary risk to himself, to force on his antagonist the alternative of victory or ruin.

On the other hand, an army which is inferior in fighting power to its adversary, will not gain much by forcing that adversary to form front to a flank, for its chance of victory will be as slight as ever.

And a great superiority in fighting power, such as larger force, or a strong position, may justify a leader in forming front to a flank in order to give battle.

CHAPTER IV.

CASE OF BOTH ARMIES FORMING ON A FRONT PARALLEL TO THE
LINE OF COMMUNICATION WITH THE BASE.—CAMPAIGN OF
JENA.

(Map No. 2.)

It sometimes happens that both opposing armies form front to their natural flanks ; for instance, the lines to their bases running east and west, the armies front north and south. This may happen from many causes : Reasons for operating thus. because both are confident in the issue of a battle, and are more careful of assailing the enemy's communications than of guarding their own ; or because one army has established such a superiority as to risk little by the movement, to which the adversary is compelled to conform ; or because of geographical circumstances which will be discussed hereafter ; or because political reasons are paramount in the plan of campaign.

During the campaign of Austerlitz, in 1805, causes of dispute and hostility existed between Napoleon and the Prussian Government.

If Prussia had then joined the coalition against the Emperor, her position on the flank of his line of march down the Danube to Vienna would have enabled her seriously to embarrass, perhaps to destroy, the plan of his campaign. He could hardly have persisted in advancing while a powerful army was descending through Franconia upon his rear. By joining Austria and Russia at that time, Prussia might have checked at their outset the victories of the Empire.

But the result of that campaign was to force Austria to conclude a peace on Napoleon's terms. And it was not till the Emperor was leading his victorious troops back to France that Prussia declared war. Nor was this the only error she committed in choosing a time for hostilities. For

Russia had made a treaty of alliance with her, and a few weeks would have brought the forces of this powerful auxiliary on the theatre of war. As it was, with untried troops, antiquated generals and equipments, divided counsels, and a meagre exchequer, she was about to enter the lists, single-handed, against the experienced leaders, the tried soldiers, and the boundless resources of Napoleon.

See Map
No. 2.

It had been the Emperor's policy to cause the several corps of the army returning from Austerlitz to halt along the course of the river Mayne. For at this time he was engaged in forming the Confederation of the Rhine, by which the territories of his German allies were to be increased at the expense of his German enemies, and the eastern bank of the great river, thus in his hands, would give him free admission to the rest of Germany. To spare France as much as possible, he had stationed his army in the territories about to be thus transferred, feeding it by forced contributions. The different corps were posted on the 3rd October 1806 as follows:—

	Corps.	Commander.	Station	Force.
Positions of the French corps.	1st	Bernadotte	Lichtentels	20,000
	3rd	Davout	Bamberg	27,000
	4th	Soult	Amberg and Bamberg	32,000
	5th	Lannes	Schweinfurt	22,000
	6th	Ney	Nuremberg	20,000
	7th	Angereau	Wurzburg	17,000
	Cavalry	Murat	between Wurzburg and Kronach	32,000
	Imperial Guard	Bessières and Lefebvre	Wurzburg	20,000
				190,000

Stationed thus along the Mayne, the French corps, looking northwards, saw before them the hills of the Thuringian Forest, part of the range of central Germany, which extends from the Rhine to the frontier mountains of Bohemia. Beyond that range is the great plain of northern Germany, the vast levels of Prussia, Hanover, and Westphalia, merging on the one side into the flats of Poland and Russia, on the other into the gentle slopes of the Netherlands and France.

Possible
French lines
of operation.

Three roads lead from the Rhine into northern Germany.

The first, from Wesel across Westphalia and Hanover, by which the mountains would be avoided,

The second, the main post-road of Germany from Frankfort along the

valley of the Mayne to Hanau, thence northward by Fulda, Eisenach, Gotha, Weimar, to Leipsic.

The third, from Mayence along the valley of the Mayne to Bamberg, thence by three defiles to the valley of the Saal—namely, Baireuth to Hof, Kronach to Schleitz, Coburg to Saalfeld.

Napoleon's newly-acquired fortress of Wesel gave him admission to the first road; but, although by traversing it he would turn the obstacle of the mountains, his path would be crossed by great rivers, which, by the volume of their waters in the lower portions of their courses, would render the passage in the face of an enemy a formidable problem. Moreover, during the long circuit which his troops must perform from the Mayne to Wesel, his design would become apparent, and the enemy would be prepared to meet him on that line.

The choice of a line of operation seemed therefore to lie between the roads which passed the Thuringian Forest, the one on its western, the other on its eastern extremity. That of Fulda-Eisenach would bring the French and Prussian armies into opposition on the Saal and Elbe, each covering its communications with its base. That of Bamberg would bring the French on the upper portion of the Saal, where it is an inconsiderable obstacle, and on the Prussian communications.

A glance at the map shows that the Elbe forms the great natural defence of Prussia against an attack from the west. The passages of the river are guarded by the fortresses of Magdeburg, Torgau, Wittenberg, and Dresden, closing the principal roads to Berlin and to East Prussia.

Here, then, Prussia might await the onset till joined by her Russian auxiliaries; but such was the influence of the traditions of Frederick's exploits on the spirit of the people, that nothing was thought of but an offensive campaign. It was said in Prussia that the success of the Napoleonic system of war was due to the supineness of his adversaries, who had chosen to await in a defensive attitude the development of his plan, and that by anticipating his attack the most effective weapon in his armoury would be wrested from him. Another and more substantial, if not more potent, reason for taking a position in advance of the Elbe, was that Saxony and Hesse-Cassel would send strong con-

tingents to the Prussian army if their territories were covered, but not otherwise. Indeed, if Saxony were left defenceless it was possible that she might save herself by submitting to conditions, one of which would be a free passage over the Elbe for the French at Dresden.

Owing to these considerations the hostile armies now faced each other on opposite sides of the Thuringian Forest. The Duke of Brunswick, a veteran of the Seven Years' War, was commander-in-chief of the Prussian army; but it was divided into two main portions, and the lesser was placed under Prince Hohenlohe, one of the sovereigns who had just been deprived of his territories by the Confederation of the Rhine. He had acquired some reputation in 1792, and exercised a certain independence of command.

Position of
the Prussian
forces.

The main Prussian army was at Erfurt; on its right about Gotha was the Westphalian contingent under General Ruchel; the advanced-guard was under the Duke of Weimar, whose business was to reconnoitre the defiles towards the enemy. Hohenlohe's main body was near Jena on the Saal, and his advanced-guard under General Tauenzien watched the defiles leading to the Upper Saal from Hof to Saalfeld. The numbers were, according to the German authorities (Thiers gives a much higher and probably inaccurate estimate), as follows:—

Duke of Weimar's force	.	.	.	.	11,000
Main body	.	.	.	.	51,000
General Ruchel's Westphalians	.	.	.	.	22,000
Hohenlohe's corps, including Saxons	.	.	.	.	44,000
Reserve under the Prince of Wirtemberg	.	.	.	.	15,000
Total in the field					143,000

Prussian base
and front

The base of the Prussian portion of the army was the Elbe from Magdeburg to Torgau—that of the Saxon contingent was Dresden; and the general front of the army was parallel to the roads from Dresden to the Saal.

French base
and front.

Napoleon had collected his supplies at Mayence, making Wurzburg his immediate depot; and the general front of the French was parallel to the road Mayence-Wurzburg.

In October both sides meditated immediate offensive operations, and up to the 7th the Duke of Brunswick believed that Napoleon intended to concentrate his army behind the Forest and await the attack. The

Prussian generals differed in their plans of action. Hohenlohe wished to throw his own corps against the French right through the defiles of the Upper Saal. He calculated on surprising and throwing back the corps successively, and forcing the grand army to the Lower Mayne, while Brunswick's corps advanced through the passes in its front to second him.

The Duke of Brunswick's plan was to move Hohenlohe's army by Saalfeld and his own by Gotha, so as to bring them into communication in the Forest, the first at Hildburghausen, the other at Meiningen, on the 12th October. Tauenzien's corps, of Hohenlohe's army, towards Baireuth was to cover the left, while Ruchel on the right was to move on Eisenach, and, by threatening Fulda, direct the attention of the French to a false point. The main armies were then to fall on the centre of the line of the Mayne, and cut off from Mayence all the French who were in Franconia.

This movement was to commence on the 10th, and, as a preliminary, the Duke of Weimar's corps was sent into the Forest to reconnoitre and form the advanced-guard. On the 9th, he reported that the French were concentrating about Coburg, and the Prussian general, abandoning his offensive intentions, began to concentrate his army about Weimar.

Napoleon had made his dispositions to advance thus:—

The Right Column—Soult's and Ney's corps in advance of Baireuth towards Hof.

The Centre—Bernadotte and Davout, with the cavalry reserve, and the Foot Guard at Kronach, to move by Lobenstein on Saalburg and Schleitz.

The Left—Lannes and Augereau, after feigning to move towards Hildburghausen, were to countermarch from left to right through Coburg towards Saalfeld by Grafenthal.

The army was ordered to cross the frontier of Saxony on the 8th October. Murat's cavalry in the centre advanced to Lobenstein. The Prussian detachment, observing the defiles, made a slight demonstration of resistance and fell back to Schleitz, without disputing the passage of the Saal, which at this part of its course is an insignificant obstacle. Emerging from the defile, the cavalry spread right and left. Towards

Hof they saw no enemy to stop Soult's march; but on the left towards Saalfeld they saw two bodies of Prussian troops which were, in fact, Hohenlohe's advanced-guard under General Tauenzoin.

9th October.—The Centre crossed the Saal at Saalburg, moving upon Schleitz. Tauenzoin's corps made a stand here, and were driven in by Murat.

Napoleon's headquarters were at Schleitz.

Lannes was approaching Saalfeld.

Soult was at Plauen.

Napoleon's
views of the
situation.

On the 10th the Emperor wrote a letter to Soult, from which we learn his view of the situation. He believed that on the 5th the Duke of Brunswick's army had moved towards Fulda to attack, and that Hohenlohe, in executing his share of the plan, would attempt to advance through the defiles which Napoleon had just traversed. He inferred that Brunswick's army had committed itself so deeply to the forward movement that many days must elapse before it could countermarch to rejoin the Prussian left wing on the Saal. He believed, therefore, that he should have only Hohenlohe to deal with, and he imagined, from the direction in which the Prussians retired (especially after hearing from Soult that the Saxon horse driven out of Plauen had retreated towards Gera), that Gera would be their point of concentration. Whether they should make or await the attack, he was equally confident of victory; and he intended, if they should retreat by Magdeburg (a contingency which he expected, probably, as the result both of his own manœuvres to shoulder them off the Leipsic road, and of the necessity they would naturally feel of keeping in communication with Brunswick), to push Soult on Dresden, the road from whence to Plauen he presumed to be clear of the enemy.

Such were his anticipations, and to realise them he pivoted his left on the Saal, and swung round his right in order to cast his weight on Hohenlohe, and to sever both him and Brunswick from the Elbe except by the long circuit of Magdeburg.

10th October.—Lannes attacked Prince Louis (commanding part of the advanced-guard) at Saalfeld, and drove him back upon Jena. Bernadotte passed beyond Auma on the Gera road. Davout to Auma.

11th October.—Lannes from Saalfeld moved on Neustadt. Augereau

filled the space between Lannes and the Saal. Soult upon Gera. Ney towards Auma. Davout from Auma to the right of Lannes, upon the Saalfeld-Gera road. The army was thus concentrated between the Elster and Saal, covering the defiles it had issued from, and cutting the Saxons from Dresden. Immense quantities of their baggage were taken by Soult's cavalry.

12th.—Napoleon heard that Brunswick, countermarching from Erfurt through Weimar, was approaching the Saal. The two principal roads to the Elbe from Weimar cross the Saal at Jena and Kosen. Kosen to Jena, 18.

Lannes and Augereau were ordered to Jena.

Davout moved north, direct on Naumburg. Bernadotte to Naumburg going round by Gera, in order to support Murat. Thus the centre became the right.

Murat on Naumburg, his cavalry patrolling the river between and beyond Jena and Naumburg. Napoleon's headquarters at Gera.

Soult was at Gera.

Ney at Auma ready to reinforce either point at need.

Lannes seized Jena.

Murat's light cavalry pushed on to the gates of Leipsic.

At this time the Prussians were concentrating towards the Saal. The Duke of Brunswick's army, not so deeply committed to the Forest as Napoleon had supposed, assembled about Weimar on the 12th, except the Duke of Weimar's advanced-guard of 10,000 men, which had not yet rejoined it. Hohenlohe's army, assembled between Weimar and Jena, was to stand fast and cover the general movement. The main body was to march through Weimar to the defile of Kosen, on the left bank of the Saal, but not for the purpose of crossing, for to pass by that road to Leipsic would be to lend an uncovered flank to the attack of whatever force Napoleon might have assembled on the right bank. He intended to hold the issue of the defile from the bridge of Kosen on the left bank, and to push two divisions on to secure the passage of the Unstrutt, a tributary of the Saal. He would then feel secure of his retreat on Magdeburg, his march to the Elbe being covered by the Saal, and the two main passages blocked by himself and Hohenlohe. General Ruchel was to remain at Weimar to rally to him the Duke of Weimar, and was then to rejoin the main army. These movements accomplished, Hohenlohe was to follow, Naumburg to Leipsic, 25.

Weimar to Jena, 12.

Weimar to defile of Kosen, 18.

Prussian movements of concentration and retreat.

and the army was then to move entire behind the Saal on Magdeburg. And it would appear that the Prussian generals conceived the French army to be advancing not as it really was, entirely on the right bank, but partly on both banks; for Hohenlohe's front, instead of being towards the river, was parallel to the Weimar-Jena road, as if he expected an attack along the left bank from Saalfeld; only Tauenzlein's corps was thrown back at an angle along the heights above Jena to observe the passage there.

On the 12th Lannes had not only seized Jena, which is on the left bank, but had pushed his light troops through the ravines on to the heights which overlook the left bank, where they were almost in presence of Tauenzlein.

13th.—Napoleon, hearing that the Prussians were definitely advancing to the Saal to fight a great battle, moved on Jena, followed by all his corps except those of Davout and Bernadotte, which reached Naumburg, seizing the bridge of the Saal with large magazines. Ney to Roda.

The valley, hitherto enclosed by the Thuringian range, widens at Jena. The right bank is flat, but behind Jena, on the left, are steep hills ascended by winding ravines. Between Jena and Kosen were two other passages of less importance, because not on main roads—namely, at Lobstedt, three miles from Jena, and at Dornberg. Lannes's skirmishers pressing on supported by a division, reached the plateau by the ravines. Napoleon followed, and from the highest hill, called the Landgrafenberg then, and since the Napoleonsberg, he saw the undulating plain as far as Weimar, and the Saal running in a deep gorge to Kosen, twenty miles distant. Hohenlohe's army was visible on the road to Weimar; but Ruchel's troops at Weimar were hidden from view, and the valley of the Ilm concealed the march of Brunswick's army towards the defile of Kosen, whither it was moving in five divisions, separated by intervals of three miles.

Napoleon's
anticipations
and orders.

Napoleon, seeing only the troops of Hohenlohe, and unable from the inequalities of ground to estimate their numbers, believed that the whole Prussian army was before him, and resolved to fight it next day. Before ascending the hill, he had sent orders to Davout to guard the bridge of Kosen, and to Bernadotte to move on Dornberg, thus closing the passage there. In the night of the 13th, expecting to fight the whole Prussian army next day, and considering that the French force at Naum-

burg would rejoin him as speedily and much more effectually by the left Naumburg to Dornberg, 13. than by the right bank, he had sent fresh orders to Davout, not merely to bar the way at Kosen, but to cross the Saal there and come down by Apolda on the Prussian rear. The despatch added, "If the Prince of Pontecorvo (Bernadotte) is with you, you may march together; but the Emperor hopes that he will be already in the position assigned him at Dornberg." Bernadotte had joined Davout at Naumburg, but on seeing the new despatch towards morning on the 14th, he construed it to express the Emperor's desire that he should be at Dornberg rather than with Davout, and to Dornberg he marched.

Murat, ordered on the 13th to assemble the cavalry at Dornberg, received a further order in the night to move on Jena.

Soult, arriving from Gera in the night, was to cross at Lobstedt, debouching on Closewitz, and on the rear of Tauenzein.

Ney and Murat were to ascend the Landgrafenberg by the route which Lannes had followed.

Augereau was to move his corps partly on the Weimar road, partly on the Landgrafenberg. The reason for this concentration on the hill instead of on the road was, that the road winded steeply up a hill to the plateau, and being strongly guarded, was very difficult of access.

Hohenlohe, still imagining on the night of the 13th that he was menaced only by Lannes and Augereau, and that Napoleon's main army was moving on Leipsic and Dresden, did not think it necessary to drive from the Landgrafenberg the French troops that had established themselves there, but had contented himself with reinforcing the corps on the left which faced the river. His main body remained as before parallel to the Weimar road, facing the point from which he still expected the attack of the two marshals.

Owing to his incorrect estimate of the position of the Prussian army, which he imagined to be assembled before him, Napoleon had massed at Jena a force double the number of the enemy. On the other hand, Davout, advancing in compliance with Napoleon's order with his corps 27,000 strong, met Brunswick's army, numbering 51,000, at Auerstedt. Auerstedt to Jena, 12. Hohenlohe's army was routed. Brunswick's, notwithstanding its superiority of force, was defeated in a battle more glorious to the victor than any other ever fought independently by a marshal of the Empire. The

beaten army of Auerstedt was retreating to Weimar to join Hohenlohe, ignorant of his fate, when the appearance of Bernadotte's corps at Apolda, where it had arrived towards evening, completed its discomfiture. Finding their retreat on Weimar thus intercepted, the Prussians in the greatest disorder turned to the right; the two streams of fugitives crossed and intermingled, and the country was covered with scattered bands heading towards Magdeburg.

Movements
in pursuit.

On the night of the battle, Napoleon, from his headquarters at Jena, directed the following movements in pursuit, with the double object of preventing the enemy from rallying, and of reaching the Elbe before them:—

Bernadotte by Halle towards Magdeburg.

Davout back to Naumburg to cover the passage, to be within reach of Leipzig, and to be ready to reach the Elbe before the enemy.

Soult on Buttelstedt, between Weimar and Naumburg.

Weimar to
Erfurt, 14.

Murat with the reserve cavalry to pursue towards Erfurt and to capture it next day; then to turn northward and continue the pursuit towards Weissensee.

Ney's corps to support Murat.

Lannes and Augereau to assemble their corps before Weimar.

Imperial Guard in Weimar.

While Bernadotte, Soult, and Murat pressed the enemy on three roads to Magdeburg, the corps of Davout, Lannes, Ney, and Augereau were allowed to rest till the 17th. Then Ney followed Murat and joined Soult before Magdeburg.

Lannes moved by Naumburg on Merseburg, observing Halle.

Augereau followed Lannes.

Davout through Leipzig on Wittenberg.

At Halle, Bernadotte found the Prussian reserve under the Prince of Wirtemberg, attacked, and drove it back on Dessau.

20th October.—Davout seized the bridge of the Elbe at Wittenberg on the highroad to Berlin.

Lannes passed at Dessau.

Augereau followed Lannes—all three moving on Berlin.

Meanwhile Hohenlohe with the remains of the Prussian armies had reached Magdeburg, which on the 21st he quitted, marching for the Oder

by roads north of Berlin. Blucher acted as his rear-guard ; and both moved slowly, partly from the necessity of spreading to procure food, partly because they desired to rally to them the Duke of Weimar's corps.

On the 15th its commander, then at Erfurt, had heard of the result of the battles, and to avoid the French he took the Brunswick road, and on the 26th passed the Elbe at Sandow. Hohenlohe had delayed for him till the 24th, then gave up the expectation of effecting a junction with him, and moved rapidly for the Oder.

25th.—Davout entered Berlin, and passed through on the Custrin road to attack the fortresses on the Oder. Intercepting
movements.

Lannes surprised the fortress of Spandau (near Berlin).

26th.—Murat's cavalry, followed by Lannes's corps, marched to intercept Hohenlohe.

Bernadotte, from Brandenburg, pursued Blucher by Nauen.

Soult passed the Elbe to cut off Weimar's corps.

Augereau held Berlin.

Ney blockaded Magdeburg.

Murat and Ney headed Hohenlohe at Prentzlow, beat him, and captured his whole force.

Blucher, thus cut from the Oder, joined Weimar's corps, and attempted to march back to the Lower Elbe, intending to base himself on fortresses there, and thence operate on the French rear. But, constantly pressed in rear by Bernadotte and on his flank by Soult and Murat, Soult cutting him always from the Elbe, Murat from the ports of the Baltic, he was hemmed in upon the neutral town of Lubeck. Driven from thence, and having in his rear the Danish frontier, he surrendered to Murat, 7th November.

Stettin capitulated, 29th October.

Ney took Magdeburg, 8th November.

The whole Prussian army with its fortresses had thus fallen into the hands of the conqueror. Results of the
campaign.

The movements subsequent to the 14th October have been stated only briefly, because the campaign was in reality decided by the victories of that day, which left the French masters of a line to Berlin and the Oder, shorter than any that was open to the Prussians.

COMMENTS.

Napoleon's three columns marched with great rapidity to the Saal. They were very little encumbered with supplies, taking only the bread and brandy necessary for the first marches; and after the defeat of the Prussian armies there was no difficulty in subsisting on the country. The radiation of the several corps of the pursuing army from the neighbourhood of Weimar ensured the supplies. As soon as the victories had opened the direct road to Frankfort by Erfurt, that was adopted as the line of communication with France; points on it were fortified and provisioned; and as soon as the passage of the Elbe was secured, a bakery and arsenal were established at Wittenberg for present needs, and another at Erfurt in case of retreat.

In the march to the Saal the principle of concentration is very evident.

The columns moved as near each other as possible; they communicated by means of the cavalry at the first opportunity; and the army was collected in a space suited to its numbers with the least possible delay. The Prussian plans for offence were, on the other hand, faulty in this respect; the project of Hohenlohe, and that of Brunswick, alike entailed the separation of the two Prussian armies during the movement, by the formidable obstacle of the Thuringian Forest.

When the movement was begun, the French army at Schleitz left their communications along the Mayne uncovered. It may be asked, then, Why did the Prussian army abandon its own movement against the French left to meet the threatened attack? Why did it not persist in that attempt, and thus reciprocally sever the communications of the French on the Mayne?

It has been said that the Prussian advance was to begin on the 10th. But on that day the Prussian left was already turned, and the French were on the Dresden road. To persist in the advance would be to abandon the Prussian communications and magazines while engaging in an enterprise against a line which was still distant, and which might never be pierced. It would be an attempt to balance a certainty by an uncertainty. Any general in the situation of the Prussian leader, feeling the whole weight of his enemy either on his flank or his communications,

will naturally seek rather to meet the danger than to engage in dubious reprisals. It may be assumed, then (and other instances will hereafter be cited in confirmation), that *when two armies are manœuvring against each other's flanks or communications, that army whose flank or communications are most immediately threatened will abandon the initiative and conform to the movement of its adversary.* The importance of this fact is immense, for the commander who finds himself on his enemy's flank or rear, while his own is still beyond his adversary's reach, may cast aside all anxiety for his own communications, and call up every detachment to the decisive point, certain that the enemy will abandon his own designs, in order, if possible, to retrieve his position.

Similar case of Chzarnovsky and Rastetzky, Chapter II.

Important deduction.

The fact also relates immediately to the subject of this chapter, as exhibiting a modification of the disadvantage of a flank position. The French communications were by their direction even more exposed than the Prussian—certainly more than the Leipsic line; yet Napoleon, once on the Saal, felt so secure that his adversaries would presently retrace their steps, that he actively continued his own advance though he believed the counter-attack to be more forward than it really was.

Nothing could prove more clearly how false strategically was the Prussian position in advance of the Elbe at the outset of the campaign than the fact, that before any considerable action had been fought, and though nothing had occurred but what had been foreseen as possible, yet the army was now, by a difficult, complicated, and doubtful movement, and a long circuit, attempting to regain the line of that river at its most distant extremity.

Napoleon's dispositions, up to the battles, were all of the same general character, being in the form of two wings and a central reserve. On the 10th the centre was at Schleitz, the left wing at Saalfeld, the right at Plauen. He then expected to find the enemy assembled at Gera; therefore the left is brought into the space between Auma and the Saal, the centre is still at Schleitz, the right is moved from Plauen upon Gera. Finding he had miscalculated, and that the enemy was on the other bank, he resolved to bar both the direct roads to the Elbe. The centre, having rested two days, pushes on to Naumburg, and becomes the right; the left concentrates upon Jena; the centre (Ney at Auma, Soult at Gera) was ready to reinforce either wing; but the left at Jena could be

Why Jena
was a more
critical point
than Naumburg
for
Napoleon.

far more easily reinforced by the centre than the right at Naumburg. This was because the left was the wing which it was most important to render secure, for the Prussian armies were concentrating in order to recover their lost communications, and this must be done either by attempting to reach the Elbe by Magdeburg faster than the French could by Leipsic, or by a desperate effort to break through the opposing ranks. That effort might be made on either of the two roads—that of Jena or that of Naumburg. If it were made successfully at Naumburg, the French right would be defeated; but, supported by Bernadotte and connected with the main line by the cavalry, it would probably succeed in rejoining the main body; while the retreat of the rest of the army would, if necessary, be secure. But if it were made successfully at Jena, the defeat of the French left wing would not end the mischief, for the retreat of a great part of the army would be cut off; therefore Napoleon so disposed his corps as to concentrate most readily at Jena.

If he could have known exactly the position and direction of the Prussian armies on the 13th October, he would no doubt have directed Soult and part of the cavalry to join Davout and Bernadotte; for, as matters really happened, he exposed Davout to encounter single-handed nearly double his force, while Napoleon himself had a preponderance over Hohenlohe much greater than was necessary, and Bernadotte was lost to both fields. But in the absence of such certainty he followed the safest course when he directed the whole of his centre on the side of Jena.

Napoleon's
miscalculations.

Historians are fond of ascribing to successful generals such endowments as "prescience" and "intuitive divination of their enemy's designs." There will be evidence in subsequent pages that these gifts, in the preternatural extent implied, exist only in the imaginations of the chroniclers, and in this campaign Napoleon had in three days made three erroneous calculations of the Prussian doings. On the 10th he thought Hohenlohe was about to attack him; on the 10th also he judged that the Prussians were concentrating on Gera; and on the 13th he took Hohenlohe's army for the entire Prussian force. Still his plan made on these suppositions was in the main quite suitable to the actual circumstances. And this, as is mostly the case, was owing to *the right direction*

given to his movements at the outset. The preliminary conditions of a campaign seldom offer more than three or four alternatives : an attack by the centre or either flank, and some combination of these. If the enemy has made such false dispositions as to render one of these alternatives decidedly the best, the general who has the faculty of choosing it thereby provides in the best possible way for all subsequent contingencies. A right impulse once given to the army, it is in a position to turn events not calculated on, or miscalculated, to advantage ; and this is probably the true secret of the “ divination ” of generals.

The Prussians, in contemplating an attack on the French left, were behindhand, compared with the French, not only in time but in space. Napoleon had massed his troops in his preliminary dispositions so close to the Saxon frontier that a single march carried them to the Saal ; but, judging from the time when the Prussian advanced-guard, which had preceded the main body into the Forest, reached Erfurt on its return, the Prussians would have required several days to arrive in force on their enemy’s communications. Hence it may be seen how great are the chances in favour of that army which is nearest its enemy’s communications. The least instructed reader will discern in Brunswick’s purblind and disjointed movements the anticipation of defeat, and in Napoleon’s swift and concentrated march the confidence of assured success.

Had the Prussian army been all assembled on the Saal on the 9th or 10th, it would clearly have been in a much better position by taking post, as Napoleon thought it would, about Gera, for it would thus have had the option of retiring through Leipsic to the Elbe. But Hohenlohe alone could not take post there, or he would have lost his communications with Brunswick by a forward movement of the French left. He was therefore obliged to await Brunswick’s arrival on the left bank, and it was inevitable that he should occupy the heights of Jena, for nowhere else could he cover the march of Brunswick though Weimar.

Why Hohenlohe occupied the heights above Jena.

Such are the matters chiefly to be noted in this campaign ; but the reason for which it is specially quoted in this place is to show that the position of an army parallel to its communications with its base is not to be presumed invariably to be disadvantageous, since the relations of the two

Special reference of the campaign to the subject of this chapter.

armies may considerably modify the effect of that circumstance. The successful assumption of the initiative by one of the combatants relieves him from all anxiety for his communications ; but the campaign also puts in the strongest light the fact, that when an army in such a position suffers a decisive defeat, and surrenders to the adversary the shortest line to the object of the enterprise, it will probably be ruined by the blow.

CHAPTER V.

HOW THE CONFORMATION OF A BASE MAY ENABLE THE ARMY POSSESSING IT TO FORCE ITS ADVERSARY TO FORM FRONT TO A FLANK.—MOREAU'S CAMPAIGN OF 1800.

(Maps No. 7 and No. 3.)

IN former years the base of the Republican armies operating in Germany had been some part of the straight course of the Rhine, from its corner at Basle to Dusseldorf. Their eminent adversary, the Archduke Charles, See Map No. 7. says that the strong line of the Rhine, and the lines of French fortresses behind it, can only be assailed by the Austrians in circumstances unusually favourable. All that can be done is to approach and choose a position where the plans of the enemy may be defeated, his advance stopped, and the country behind covered.

The armies on the Rhine had hitherto been on parallel fronts; the Austrians generally on the defensive, since the exceptionally favourable circumstances which could alone enable them to assume the offensive by passing the Rhine had not existed. The French, breaking out at one or other of the bridge-heads which they possessed on the river, would try to press forward into Germany; the Austrians, drawing together on the threatened points, would oppose them: and the result was that, in 1800, the river still formed the frontier line between them. Bridge-head: a fortification securing the passage of a bridge.

But in 1800 a new condition had entered into the problem of a campaign on the Rhine. The French had occupied Switzerland—an act which, like many of Napoleon's measures, was in itself unscrupulous and oppressive, but which entailed military results such as few generals of that time had the foresight to appreciate. One was to carry the French base onward from Basle, round the angle to Schaffhausen. Thus that

base, originally straight, was now rectangular, and enclosed within it a part of the theatre of war.

Positions of
the French.

France held all the places on the Rhine, and three bridge-heads at Basle, Kehl, and Cassel. The different parts of Moreau's force were thus stationed:—

Schaffhausen
to Basle by
the Swiss
bank, 55.

The right wing, General Lecourbe, 29,000 strong, was posted along the Swiss portion of the Rhine, from Lauffenberg to beyond Lake Constance.

Next on the left was the reserve, 26,000, occupying the entrenched camp at Basle, and extending from thence to Seckingen on the right, and on the left to Upper Alsace.

Basle to
Brisach, 35.

The centre, under General St Cyr, 30,000, stretched from Brisach to near Strasbourg.

Brisach to
Strasbourg,
40.

The left wing, General Ste Suzanne, 19,000, occupied Strasbourg and the bridge-head of Kehl on the opposite shore.

Renchen to
Donaues-
chingen, 55.

Besides Moreau's army, a force of 30,000 French occupied Switzerland.

The opposing forces were thus posted: The Austrian right wing, General Starray, 16,000, from the Mayne (where it observed the bridge-head of Cassel) to Renchen, and General Kienmayer, 15,000, the defiles from Renchen to the Höllenthal.

Positions of
the Austrians.

Main body, under the Austrian commander Kray, 40,000, at Villingen and Donaueschingen.

Donaues-
chingen to
Stokach, 28.

Reserve at Stokach.

On Lake Constance was an Austrian flotilla, and beyond the lake, in the Grisons and Reinthal, was what the Austrians termed their left wing, under the Prince de Reuss, communicating by a brigade in the Italian Alps with the Austrian army in Italy. But as this left wing acted almost altogether independently, and the campaign was fought out by the armies on both sides then between Lake Constance and the Mayne, it is not necessary to perplex the subject by further adverting to these forces, or to the French troops occupying Switzerland.

Austrian
communica-
tions.

The Austrians were of course far from their natural base, which was the Bohemian mountains and the Enns river. From thence roads led through Ratisbon along the Danube, while a more southern line lay by Steyer, Munich, Landsberg, Memmingen, Stokach, Engen, to Brisach.

The initiative lay with the French, who held all the passages over the river. It was for Kray to watch and defeat their attempts. He might



have found a much safer position farther in rear; but experience had proved to the Austrians, that to uncover the territories of the small German powers, such as Baden and Wirtemberg, was not merely to lose the contingents they lent to Austria, but to transfer their resources to the enemy. Kray therefore kept as forward a line as possible, but held his masses together about Stokach and Donaueschingen, that he might be ready to meet an attack on that side.

His troops were spread along the region known as the Black Forest. The valley of the Rhine, narrow at Basle, begins a little below to widen, till it reaches a breadth of about fifteen miles. Good roads lie along its course on both banks, but the great tumbled barrier of hills on the right seems to forbid all passage to Germany that way; yet there are fissures in the mountain-ranges in which lie roads passable for troops though difficult, and which lead through the Forest into the valley of the Danube. From Heidelberg, Bruchsal, Karlsruhe, Rastadt, roads to Ulm pass round or pierce the Black Forest. Opposite Strasbourg the Kinzig valley, opposite Brisach the valley of Waldkirch and the Höllenthal, give admission to the region in which lie the sources of the Danube. These passes it was Kray's business to guard. He had spread his right wing so far, because the French, collecting in overwhelming numbers behind the screen of the Rhine at Mayence, might from thence pass round his right, if there were nothing to observe or stop them. All along the valley of the Rhine he doubtless had his cordon of cavalry posts observing the river—bodies of infantry at the entrance of the different passes—and other bodies in support at points where those passes intersected in the Forest, such as Haslach. Then his main body at Villingen and Donaueschingen covered the two roads by Rothweil and Mosskirch upon Ulm; while his reserve at Stokach might either support the main body in opposing an attack from the side of Alsace, or, in conjunction with the main body at Donaueschingen, form front to the south to meet an advance from Schaffhausen.

Bonaparte, who depended on Moreau's success for the execution of his own campaign in Italy, wished the attack upon Kray to be made in the most decisive manner. He desired to take the fullest advantage of the conformation of the French base by concentrating the army between Schaffhausen and Lake Constance, and directing the march straight on

Roads of the
Black Forest.

Different
plans of
Moreau and
Bonaparte.

the neck of the Austrian communications at Ulm. To this Moreau objected, on the ground that the left and centre of his army must make a long circuit to join the right; that a movement so extensive would become known to the enemy, who would prepare to concentrate and crush the columns as they passed the Rhine, and who, being on the base of the triangle round the sides of which the French must march, would be ready to intercept them.

Bonaparte responded that the broad stream of the Rhine afforded exactly the kind of curtain that was desired to screen the operation, while the results offered by success would probably be decisive, as the whole French army would be brought against Kray's left, and the forcing of that wing would cut him from his base, and from the secondary point of Ulm.

Moreau, however, considered the risk too great. Like most generals, he desired at almost any cost to avoid the risk of having to force a considerable river in face of a concentrated enemy. His own plan was this:

Moreau's plan
detailed.
See Map
No. 3.

With his left wing (Ste Suzanne) he meant to cross the Rhine at Kehl; with his centre (St Cyr) at Brisach; with his reserve at Basle. Ste Suzanne and St Cyr were to attack the defiles of the Kinzig and the Elz on the same day. This would induce Kray to believe that the French were massing opposite his right; and he might be confirmed in that false impression by the extension of one of the brigades of the Centre *down* the valley of the Rhine towards the French left wing, as if to connect the two corps.

As soon as Kienmayer should be driven into the defiles, and so excluded from knowing what was going on in front or on each side of him, the left wing was to recross at Kehl, march up the left bank, and cross again to the German side at Brisach.

During this movement, St Cyr was to move the infantry of the centre across the hills to St Blazien, sending his artillery and trains along the highroad on the right bank of the Rhine towards Schaffhausen. The reserve, crossing the river by the bridge of Basle, was to push detachments up the valley of the Weiss from Basle to maintain connection with St Cyr, and was then to march along the Rhine to Schaffhausen, where the right, under Lecourbe, was to be assembled on the left bank of the river. Bridges were then to be thrown, and Lecourbe's corps was to pass, protected by the reserve.

Thus two corps—namely, the reserve and right—would be in mass between the Lake of Constance and the Austrian main body; while the long march of the reserve in the defile between the mountains and river was to be covered and screened by St Cyr's infantry. Lastly, as soon as these three corps should be reunited on the Upper Danube, Ste Suzanne was to pass through the Höllenthal and join them.

In the meantime, Starray with the Austrian right would be altogether excluded for the present from the sphere of operations. Kray having just been induced by the false attacks of Ste Suzanne and St Cyr to strengthen Kienmayer, would be in no condition to oppose the real advance on his left. The Prince de Reuss would be cut off and left in Switzerland.

It must always be a doubtful policy to oblige a general charged with the conduct of a campaign to adopt a plan other than that which he has himself originated and matured, even though it be manifestly better than his own. Recognising this fact, Napoleon, who might as First Consul have exercised considerable control over all the military movements, and who was quite convinced of the superiority of his project, nevertheless left Moreau to the undisturbed execution of his own conceptions; and operations commenced on the 25th April 1800.

25th April.—Ste Suzanne's corps from Kehl pushed Kienmayer's posts French into the Kinzig valley, and occupied the Rhine valley in front of that operations avenue.

St Cyr simultaneously passed at Brisach. One division pushed down the Rhine valley towards Kehl, as if to connect the two attacks. His other divisions advanced on Friburg, drove in the Austrian brigade there, and occupied the entrance of the Höllenthal.

26th April.—Kray at Donaueschingen heard of this. Kienmayer Austrian reported that he had been attacked by 40,000 men (as he was). Kray movements. believed that the design was to force the Höllenthal and the Kinzig valley, and thus to gain the sources of the Danube.

Kienmayer's left brigade, under Giulay, occupied Waldkirch and the Höllenthal. The rest of his force was in the Kinzig valley. Kray reinforced him with 9 battalions and 24 squadrons from Villingen. To replace these he drew 9 battalions from Stokach. He drew in his extreme right under Starray by ordering it to move into the valley of the Murg, but it was still at a great distance.

The two French corps remained in their positions.

27th April.—Ste Suzanne repassed at Kehl and marched for Brisach.

Friburg to
St Blazien, 25.

St Cyr from Friburg, ascending the mountain barrier on his right with his infantry, followed the paths leading on St Blazien, excepting one division which remained to block the entrance of the Höllenthal.

Basle to Lauf-
fenberg, 24.

The reserve, directed by Moreau, debouching from Basle by the bridge-head there, one division was pushed up the Weiss to give a hand to St Cyr, and the other two divisions were directed on Lauffenberg.

28th April.—St Cyr came into communication on the mountains with the division of the reserve, which had moved through the valley of the Weiss, and St Blazien was occupied.

The other two divisions of the reserve forced and turned the passage of the Alle against an Austrian brigade intrenched there, which fell back towards Donaueschingen, halting at Bonndorf. The other Austrian posts along the Rhine, threatened by the French advance, withdrew to a position about Stuhlingen.

Neustadt to
Stuhlingen,
15.

Kray ordered Giulay to withdraw his brigade through the Höllenthal, but to guard its inner gorge. Thus the present Austrian front towards the French was on the line Neustadt-Bonndorf-Stuhlingen, and to support this advanced line, reserves were moved from Villingen and Geisingen to Loffingen and Zollhaus. But Kienmayer was left in the Kinzig valley.

29th, 30th April.—The advanced-guard of Moreau's reserve was at Thiengen—main body about Waldshut—left towards St Blazien, which was occupied by St Cyr, whose left prolonged the line in the mountains. On the 30th Ste Suzanne entered the Höllenthal. On the night of the 30th Lecourbe had concentrated his corps on the road which runs along the left bank of the Rhine, a few miles above Schaffhausen.

1st May.—To cover the passage of the right wing, the reserve advanced towards Schaffhausen. The advanced-guard forced the passage of the Wutach on the Schaffhausen road, while St Cyr, moving east from St Blazien, rested his right on Stuhlingen.

The reserve finally halted near Schaffhausen.

The first battalions of the right wing passed the Rhine in boats, at two points, and moved up the river to Stein, where they covered the construction of a bridge, by which Vandamme's division passed, and pushed up the valley of the Aach to the Schaffhausen-Stokach road. The next

division that crossed made for an intermediate point of that road, where the Engen road joins it. The third division moved on Schaffhausen.

Thus Moreau's army, *minus* Ste Suzanne's corps, was united on the desired routes between the lake and the Danube, opposite the left of Kray. Ste Suzanne's leading division, having passed the Höllenthal, was at Neustadt.

2nd May.—Moreau, apprehensive that the Austrians in Switzerland might cross Lake Constance and fall on Lecourbe, brought his reserve closer to his right by placing it in the space Thayngen-Schaffhausen, while the right wing occupied the space between the small bay of Constance and the Engen road, and St Cyr's corps extended from Schaffhausen to Stuhlingen.

On the other side, the Austrian outposts had quitted the banks of the Rhine when Lecourbe crossed, drawing towards the advanced line which stretched from a point north of Thayngen to Steisslingen (near Stokach on the Schaffhausen road); Giulay's brigade, pushed from Neustadt by Ste Suzanne's advance, moved to Bonndorf—the troops at Bonndorf to Zollhaus—the troops at Zollhaus to Geisingen—main body and reserves at Geisingen. Kray meant to unite next day at Stokach.

3rd May.—The French right wing moved on Stokach in two columns, with two brigades on its left in the Aach valley, connecting it with the reserve which moved on Engen. St Cyr to the left of Engen extending towards Zollhaus.

Lecourbe, with about 20,000 attacked and enveloped the division on the left of the Austrian line, about 9000 strong, driving it through Stokach, with great loss, on the roads of Mosskirch and Memmingen. Immense magazines were taken in Stokach.

While this passed on his left, Kray arrived with his main body at Engen. The right of the Austrian advanced line near Thayngen was driven in on Engen by the superior weight of the reserve and the brigades in the Aach valley. Kray had now about 45,000 men in position from Engen to Zollhaus. The French attacked the position before Engen, while St Cyr engaged the troops at Zollhaus. The battle was severe and well contested, and was not decided at nightfall. But the news from Stokach alarmed Kray for his communications, which the capture of Mosskirch by Lecourbe would sever, and he retreated.

Stokach to
Engen, 12.

The armies
concentrating
towards the
threatened
point.

Austrians lose
one line of
communica-
tion by
Stokach.

4th May.—Covered by his rear-guard Kray withdrew his troops on Tuttlingen, Liptingen, Mosskirch. A strong position existed in front of the road Tuttlingen-Mosskirch, behind which the army withdrew to Mosskirch.

Starray was on the march for Hechingen.

Kienmayer was moving to join Kray by the left bank of the Danube.

This day Moreau reinforced his right.

Reserve on the Engen-Stokach road.

St Cyr at Geisingen.

Ste Suzanne at Donaueschingen.

5th May.—Kray with about 40,000 men took position at Mosskirch. The remains of his left, beaten at Stokach, had joined him, but his right at Tuttlingen was still distant, and Kienmayer and Starray were still beyond the Danube.

The French reserve and right (50,000) attacked Kray, who, driven from Mosskirch, retired towards Sigmaringen. Anxious for the safety of his right, which had been left at Tuttlingen, he halted, and throwing forward the right of his line, drove the French from the road Tuttlingen-Mosskirch, thus reopening communications with his right and with Giulay's brigade, which latter joined him. With his right thus reinforced by these new troops, he attacked the left flank of Moreau and attempted to seize the Stokach road, but he was himself outflanked by one of the rear divisions, and withdrew to another position behind Mosskirch.

This battle was indecisive and the losses equal; but St Cyr (who had been called towards Liptingen, to be near Moreau, and to hinder the junction of Kienmayer) was now approaching the main army; and Ste Suzanne, who entered Donaueschingen on the 4th, came into line on St Cyr's left towards Geisingen; therefore Kray resumed his retreat. He passed the Danube on a line of which Sigmaringen was the centre.

6th May.—Kienmayer joined Kray at Sigmaringen, and the Austrian army moved towards Rietlingen.

7th May.—Austrians to Biberach. This movement, deviating from their object, Ulm, was probably made in order to evacuate the magazines at Biberach and Memmingen.

Moreau continued to manœuvre by his right—not to cut the enemy from Ulm, which he could not now prevent them from reaching, but

to divide them from Munich and from Reuss's army in Switzerland.

Here the campaign ceases to exemplify the particular condition which it was selected to illustrate. For the French front, which up to the battle of Mosskirch had been perpendicular to the roads leading back to Schaffhausen, was now, as it faced the Danube, parallel to the road Biberach-Stokach-Schaffhausen. Hence, not being covered by a river (as the Austrian line to its base was by the Danube, as soon as the army reached Ulm), Moreau's communications were even more exposed than Kray's.

COMMENTS.

The effect of the angular base of the French is visible on the dispositions of the Austrians even before the campaign commenced. Had the French only possessed the straight Rhine frontier up to Basle, as formerly, Kray, under no particular apprehensions for his left flank, might have posted his main body and reserves at points whence they could with equal facility have reinforced any of the detached bodies guarding the defiles on whom an attack might have been made; but, as the case really stood, he was obliged to dispose his main body and reserves far away to his left rear on the line Villingen-Donaueschingen-Stokach, in order to be ready to meet an attack on that side, which, if unopposed, would sever his communications.

The plans of campaign of Napoleon and of Moreau had this in common, that both aimed at the communications of the Austrians by an advance from the extreme point of the angular base; but in the mode of effecting the common object they differed materially, and the difference was the result of the individual characters of the projectors. When Napoleon's glance was once fixed on the point where decisive success lay, the obstacles in his way lost, in his mind, much of their importance, and were viewed merely as difficult steps to his object. Hence, though he neglected no provision nor precaution which prudence and experience could suggest for overcoming them, yet he never allowed them to assume an importance sufficient to deprive his plan of campaign of its fullest significance. Disregarding, therefore, the fact that he must throw his army entire at one point across a great river which was observed by the

enemy, he looked only to the great results that must flow from the advance of that army, concentrated, upon the vital point of an enemy whose forces would still be in greater or less degree dispersed.

Moreau, cautious and forecasting by nature, saw in his mind's eye the Austrian army assembled opposite Schaffhausen to oppose his passage—baffling the whole plan. All his precautions, therefore, were framed to obviate the danger of crossing in face of the enemy. Only one corps was to cross at Schaffhausen—another, the reserve, was to cross at Basle to cover the passage; this entailed the movement of a third through the mountains to cover the long flank march of the reserve along the river; and a fourth was to make a false attack in order to detain the Austrian troops in the defiles as long as possible, and prevent them from reinforcing the left.

The great objection urged against this combination is the long flank march of the reserve between the mountains and the river; but this appears to diminish on an inspection of the map, for no road traverses the Black Forest leading into the space between Basle and Waldshut by which a large Austrian force could move with artillery so as seriously to menace the French. Any attempt against them which the country admitted of would probably be checked by St Cyr, who would also flank, at St Blazien, any attempted movement on Waldshut. It was sufficiently certain, therefore, that the reserve would make good its march on Schaffhausen, would cover the passage there, and would be ready to move forward in conjunction with the right.

The advantages to be expected were by no means so decisive as would follow the successful execution of Napoleon's plan. For only two corps would be ready at once to operate on the decisive point, and their subsequent movements must be hampered by the necessity of waiting for the centre and left. Whereas Napoleon would have assembled the whole army ready to fight with a superiority, and a victory would at once open the way into the valley of the Danube. And, granting that the Rhine were safely passed, no French general could desire better than that Kray without Starray should be forced to give battle in a flank position to the whole French army.

It is probable that Napoleon's plan would have miscarried in the hands of Moreau; but looking at other achievements of Bonaparte,—his descent

on the Austrian rear in Italy a few weeks later—his decisive march to the Danube in 1805 on the other side of the present theatre—and his march to the Saal, already described,—it is not to be denied that, executed by himself, the design might have fulfilled all his expectations.

The false attacks of Ste Suzanne and St Cyr had the effect not only of detaining Kienmayer's 16,000 men in the defiles, but of causing Kray to move thither 6000 or 7000 additional troops. But they had no influence in detaining Starray, who was already so distant on the right that it would be impossible for him in any case to join Kray in time for the first operations. We find, then, that at first 49,000 French were employed in detaining less than half their number; and when St Cyr had joined the reserve, still Ste Suzanne did not probably neutralise a greater number of the enemy than his own corps. The detached operations of Ste Suzanne appear, therefore, dangerous and fruitless.

On the 28th April, Kray might have divined the real design of Moreau. He must have known that Ste Suzanne had repassed the river; that St Cyr was in the mountains; that the reserve had driven in his outposts on the Upper Rhine; and he should have learnt from Reuss that Lecourbe was moving on Schaffhausen. Putting these pieces of information together, the design against his left was apparent. He might have met it in two ways: he might have fallen on St Cyr with his reinforced right, thus utilising the troops which he had falsely moved in that direction; or he might have concentrated his army between Engen and Stokach before the French left wing could have joined the other corps,—ready to give battle with his whole force, and closing the space between the lake and the Danube by which Moreau desired to penetrate. That he made no counter-attack on St Cyr might be owing to the difficulties of the country; or it may be a confirmation of what has been already asserted in a former chapter—that a general, threatened in his communications, thinks of protecting them rather than of making a counter-attack on his adversary. But the second plan—the concentration on the left—was quite practicable; and had it been executed, Moreau, *minus* Ste Suzanne, advancing on Engen, would have met Kray, *minus* Starray. And as Starray's absence was owing to distance, and not to Moreau's precautions, the French general's combination was a failure, inasmuch as it deprived him of the support of his left without any corresponding advantage.

As matters actually happened, Kray, not interpreting events rightly, neglected to call in Kienmayer, and was outnumbered on the 3rd May, not on his centre or right, where he fought a drawn battle, but on the vital point—namely, his left, where Lecourbe easily defeated the inferior force opposed to him. In order to turn the situation to the fullest account on this day, Moreau should have borne in mind that the important business was to reinforce and push forward his own right, for the object of the campaign was to cut Kray from Ulm. Instead, therefore, of drawing troops, as he did, from right to left, the reverse of that process would have been more consonant with the general design. St Cyr should have been weakened to send troops to the reserve, the reserve should have despatched troops to the right, and St Cyr, instead of being seriously engaged on a point where nothing decisive could be effected, should have been kept back, and restricted to the task of covering the communications with Schaffhausen against a counter-attack. Kray, dislodged by the advance of Lecourbe, would have been forced to retreat without a battle, and ought to have been anticipated at Mosskirch, when he would have been in great danger of being cut off from Ulm. As it was, he made good his retreat; and having gained Mosskirch, while the French centre and left were still westward in the Forest, he was secure of reaching Ulm.

In this campaign, then, is exemplified the use of an angular base in causing the enemy to form front to a flank. Kray was obliged at Moreau's approach to front southwards parallel to his communications. The French front meanwhile completely covered the line to Schaffhausen and they advanced securely and confidently, while the Austrians were hastening, with doubtful purpose and in straggling array, towards the menaced quarter. Though the battle of Engen was indecisive, yet the direction of the French attack compelled Kray to retreat, and the whole of the Black Forest was lost to the Austrians, though they had not sustained a defeat. If such results followed from the imperfect combination of Moreau, it may be imagined how complete would have been the success of Napoleon's plan. And by supposing that the French had possessed a fortified bridge at Schaffhausen, by which they could have passed at once to the other bank with certainty and security, it may be perceived how important an influence may be exercised by the possession of an angular base.

So far, then, as may be, without reference to Obstacles, the various

cases have been enumerated in which an advantage of a certain kind is obtained over an enemy by forcing him to form front to a flank. This may be the result of *manœuvres* between armies which were originally on parallel fronts, as was the case in the campaigns of Novara and Salamanca, when *the direction of the roads in the theatre* enabled one general to assail his adversary's communications without exposing his own. It may be the result of *a prompt assumption of the initiative*, as at Jena, where the communications of the offensive army were secured by menacing the adversary's; and in this last example of 1800, *the configuration of the frontier line* was made subservient to the same end.

CHAPTER VI.

THE CASE OF AN ARMY PROLONGING ITS MOVEMENT AGAINST THE
ENEMY'S COMMUNICATIONS BY PLACING ITSELF ACROSS THEM.

IN discussing the operations of Radetzky in 1849, it was said to be more judicious in that general to advance as he did upon the road Mortara-Novara, than to throw himself across the road Novara-Vercelli; because, in the second case, the Sardinian army, being totally intercepted, might take the resolution of marching to the Po across the Austrian communications with Pavia, and would thus not only extricate itself, but inflict some passing injury upon its adversary. But there are cases where a general, having succeeded in turning the flank of the opposing line, has not been content with compelling the enemy's forces to form front to that flank, but has thrown his army across their line of retreat. In two notable instances this was done by Napoleon—namely, at Marengo and Ulm—and once by Moreau in 1800 on the Danube, subsequent to the operations described in the last chapter. Were these, then, exceptional cases? or were the French generals, in operating thus, giving the enemy that chance of escape which Radetzky would, in the case supposed, have offered to the Sardinians?

As it is impossible that hostile armies can be operating from the same base, it follows that an army which throws itself across the communications of its adversary cannot directly cover its own. If the two bases are parallel, then the army operating thus must make a complete counter-march, and must ultimately front its own base, with which it can retain communication only by a circuitous route; while the adversary, by a flank or oblique movement, can render the interception reciprocal—and

taking the most favourable case, namely, that the army thus operating starts from a base parallel to its adversary's line of retreat (as the French base from Basle to Lake Constance in 1800), it must, in throwing itself across its enemy's communications, *form front to a flank*, and so far endanger its own. In that case a great opportunity of improving his position is offered to the adversary, since, by traversing, in a retreat towards his own base, the line by which the enemy's army advanced, he will probably re-establish his own communications by his flank, while he severs the enemy's, and will thus reverse the position.

It may happen that the connection of an army with its base is by a single road. If the base be a point only, not a line—as, for instance, a harbour where a landing has been effected—this will, most likely, be the case. And even when a great army is operating from an extensive base the nature of the intermediate country may be such as to force the principal routes to meet in some defile which forms the only practicable thoroughfare. Had the Allies in 1813 succeeded in their design of See Map No. 2. throwing their army across Napoleon's rear, west of Leipsic, he would have had no alternative but to break through or be ruined. For the Harz Mountains on the one side, and the Thuringian Forest on the other, had narrowed the channel by which he communicated with France to the single road Leipsic-Erfurth-Hanau.

In general, however, an army thus cut from its base will have two or three alternatives. 1st, It may march directly on the opposing force, and try to drive it off the line or rout it; 2nd, It may march to one flank across the communications of the enemy; 3rd, It may attempt by a march to the other flank to avoid a collision. And it must be remembered that these flank marches entail none of the usual risk, which is, that they uncover the communications; for an army that has lost its communications is at any rate free to move in all directions, and cannot well change its position for a worse.

It will generally be very difficult for a commander who aims at his adversary's rear, to know how soon the enemy may be informed of his design, and how promptly steps may be taken to frustrate it. He will, therefore, when practicable, direct his movement so far to the rear as to ensure the interception of the enemy. It is to be presumed that he will, on reaching the point aimed at, be ignorant of the movements of the

intercepted army, and must either await its approach, or advance to close with it. The only certainty he can feel will be that the enemy cannot pause or delay, but must act at once as soon as they can concentrate their forces.

On the other hand, the intercepted commander must directly experience all the doubt, confusion, and discouragement which follow the loss of communications. If he evades the assailing force by marching round its outward flank, he must undergo the humiliation of abandoning territory without a blow. If he marches straight upon it, a victory may retrieve all, but a repulse will be ruin. If he marches upon its communications and succeeds in anticipating it there, he may reverse the position.

CAMPAIGN OF MARENGO.

(Map No. 5.)

Austrian
positions.

See also
Part ii. ch. 3.

Object of
Napoleon.

In May 1800, the Austrian army in Italy, numbering 100,000, under General Melas, was engaged in three different operations: 1st, A corps of 25,000 men under Ott was besieging Genoa; 2nd, Between the Apennines and the sea another corps under Elsnitz was covering the siege from the efforts which a French corps, 14,000, under Suchet, was expected to make for the relief of the place, and an Austrian success there might be expected to transfer the war into French territory; 3rd, The remainder of the army was spread along the foot of the Alps watching the issues from the Apennines to the St Gothard. The Austrian lines of communication with the base on the Mincio have been already specified (page 72).

Napoleon's object was to descend into Italy by the St Bernard, with 35,000 men, drive back the portion of the Austrian line north of the Po (about 10,000 strong), and enter Milan, where Moncey's corps of 15,000, which had left Moreau's army on the 10th May, would join him by the St Gothard. If this design could be concealed till he had thrown a force across the Po at Piacenza, the Austrian army would be cut from the Mincio; and the concentration of their forces which must precede their subsequent movements would relieve Genoa and leave Suchet free to form a junction with its garrison.

On the 24th May the head of the main French column issued from Ivrea. Here branch the roads to Milan and Turin. Lannes's division, forming the advanced-guard, was pushed along the Turin road.

Ivrea to
Milan, 70.
Ivrea to
Turin, 88.

Meanwhile, on the 22nd May, the head of another French column, under Thurreau, had shown itself from the Mont Cenis on the Susa road. It was in reality only 4000 strong, but it might be the advanced-guard of the French army; and so the Austrian general judged it to be, while he considered Lannes's division merely as a detachment employed for the purpose of making a diversion. On this false calculation he placed the greater part of the force of his centre, assembled round Turin, on the Susa road, and sent only a division to oppose Lannes on the side of Ivrea.

26th May.—Lannes drove back the Austrian division and advanced to Chivasso, where he seized boats as if for the passage of the Po.

27th.—The rest of the French army began the movement from Ivrea towards Milan.

28th.—Lannes again attacked the Austrian division, and immediately afterwards began to move towards the Ticino, on the Pavia road.

28th to 30th.—The main French army under Napoleon pushed the Austrians from the defensive lines of the Sesia and Ticino.

29th.—Melas learned the advance on Milan, but believed the Austrians on the Ticino under Wukassowitch would check it.

31st.—He prepared to advance with the troops of the centre (about 20,000), crossing the Po at Casale, and cutting the French communications at Vercelli, while the same movement would isolate Lannes from Napoleon. But on the same day he learned the reverses of Kray on the Danube, the retreat of Wukassowitch beyond the Adda, and the arrival of the head of Moncey's column on the Ticino. He therefore felt the necessity of assembling his forces before attempting to break through the formidable array opposed to him on the Ticino, and, suspending the advance, gave orders for a concentration round Alessandria. Elsnitz was to quit the Var and march on Asti, leaving rear-guards to close the Apennines against Suchet. The forces covering Turin were to wait there till Elsnitz's column should have reached its destination, in order to protect its march from the French on the Mont Cenis, and were then to move on Asti also. Ott was to raise the siege of Genoa, and hasten with his corps to seize the important point Piacenza and defend the line of the Po. But Ott awaited the capitulation then pending.

2nd June.—Napoleon entered Milan, and there awaited the arrival of

Feints on
Turin cover
the advance
on Milan.

Austrians,
threatened in
rear, obliged
to concen-
trate.

French astride Moncey's forces, which, delayed by the difficulties of the route, did not all assemble on the Ticino till the 6th.

Austrian communications.

6th June.—Lannes's and Victor's divisions passed the Po at Belgiojoso.

7th June.—Lannes and Victor, turning westward, passed Stradella.

Murat passed near Piacenza, and took the place.

Duhesme passed at Cremona.

Meanwhile the movements of the Austrian corps under Elsnitz and Ott were these:—

3rd June.—Elsnitz, executing Melas's orders of the 31st, was retreating on Ormea.

5th June.—Two of his brigades were cut off by Suchet in the Apennines.

7th June.—He reached Ceva with only 8000 of his late force of 18,000 men.

On the 4th June Genoa capitulated.

Genoa to
Tortona, 35.

5th and 6th.—Ott, placing a garrison in Genoa, sent a brigade of infantry towards Piacenza by Bobbio, and marched with the rest of his corps on Tortona for Piacenza.

7th and 8th.—He reached Tortona.

Tortona to
Montebello,
15.

9th.—Continuing his march on Piacenza, he encountered Lannes and Victor at Montebello, was defeated, and driven back upon Alessandria.

10th, 11th, and 12th.—Napoleon awaited the movements of the enemy in the following attitude:—

The four divisions of Lannes, Victor, Murat, and Desaix, 28,000, were assembled about Casteggio.

Moncey's force on the other bank of the Po guarded the line of the Ticino from any attempt Melas might make to break through.

The rest of the French army was also on the left bank of the Po employed in pushing Wukassowitch back to the Mincio, in blockading the garrisons of Austrian forts in Lombardy, and in guarding the communications between the Ticino and the St Bernard.

12th.—Melas's army was assembled round Alessandria.

13th.—Napoleon, impatient to learn the movements of the enemy, crossed the Scrivia, pushed his advanced-guard to the Bormida, and detached Desaix with a division to seek intelligence towards Rivalta.

14th.—The Austrians issued from their bridge-head on the Bormida, and

fought the battle of Marengo. The French were at the end of the first period of the battle driven back to S. Giuliano, but the return of Desaix from Rivalta changed the fortune of the day, and the Austrians were driven in rout over the Bormida.

15th.—Melas capitulated, abandoning the country and its fortresses as far as the Mincio, but saving his troops. For Napoleon, considering that Melas's army was yet formidable, and might in another effort succeed in breaking through his cordon, permitted them to pass.

COMMENTS.

Ivrea is an example of the importance of particular points without regard to their capability of defence. The fact that from thence there was a road to Milan, whither Napoleon wished to go, and another to Turin, whither he desired Melas *to believe* that he wished to go, was of great moment. For, so long as Lannes threatened Turin, so long was the march on Milan screened.

Thurreau's force, being entirely separated from the main army throughout the operations, was useful only as leading the enemy to a false conclusion. But its value in that respect was incalculable. There were sufficient Austrian troops round Turin to check Thurreau and crush Lannes, thus laying bare the rear of the French army. But the road of the Mont Cenis was both more practicable and more direct than that of the St Bernard; moreover, Thurreau had artillery, and Lannes, at first, had not, for his guns had been delayed by the difficulty of passing the Austrian fort of Bard. It was but a natural error, therefore, for Melas to believe that Thurreau was backed by the whole French army.

The critical part of Napoleon's movement lay between Ivrea and the Ticino. For, during that march, his communications were by the St Bernard, and an advance, such as that which Melas intended on the 31st May, would have cut off his retreat. But on passing the Ticino, he not only gained the addition of Moncey's force, but a new line of retreat, in case of need, by the St Gothard.

Next what he had most to fear was a speedy concentration of the Austrians. Against this he might confidently count on the reluctance which Melas would naturally feel to withdraw his forces from Genoa and

the Var, whereby the fruits of the whole campaign would be abandoned. Moreover, the time which must elapse between the transmission of orders from Turin or Alessandria, and the assembling of the Austrian corps on the Po, could not be less than five or six days. Melas actually ordered the concentration on the night of the 31st May. Ott probably received the order on the 2nd June.¹ Had he obeyed at once he would have reached Montebello on the 7th instead of the 9th. On that day Lannes was across the Po and moving by Stradella. It was therefore a question of a few hours, whether the Austrians should or should not close the line of the Po between Casale and Piacenza against the French, and so secure their own retreat.

This crisis passed, we find Napoleon dividing his army. One half only is on the south of the Po; most of the remainder is employed in guarding the communications. And here is seen the danger of this kind of operation. For Melas's army of 32,000, with superior cavalry and artillery, was assembled at Alessandria on the 12th; on the 14th it might have broken through Moncey's feeble cordon and have reached Milan while Napoleon was seeking it on the Bormida.

There was a special circumstance in this campaign which should have induced Napoleon to bring his whole army to the south bank. For if Melas moved through Milan he would leave the country south of the Po clear for Napoleon to establish another and better communication with France by the south of the Apennines, and, moreover, a junction with Suchet would be effected, and the territory which was to be the prize of the campaign would be lost to the Austrians. But Napoleon could not be satisfied to let the enemy escape even at such a sacrifice of territory, and therefore it was that he left the Ticino guarded. But there was another alternative open to Melas. He might not only retreat by the north of the Po, but by the road from Alessandria to Genoa; and he actually contemplated the movement, expecting to maintain himself there with the aid of the fortress, of the strong position in the Apennines, and of the English fleet. The prisoners captured by Lannes at Montebello would inform Napoleon that Genoa was now Austrian, and that a retreat thither was offered to the foe. Therefore it was that his eager and grasping ambition led him to seek a superior enemy in the great plain of Marengo, a field altogether favourable to that enemy, who was stronger

¹ Note what a difference the electric telegraph would have made here.

in cavalry and artillery; and therefore it was also that the victory was further jeopardised by the detachment of Desaix towards Rivalta.

Looking at the position of the French army throughout this short campaign, it is evident that Napoleon might have been obliged to fight an equal enemy in a situation where, in case of defeat, he would have been cut off from the St Bernard (which, had as it was, was the best line of retreat he possessed), and must have retired by the St Gothard at the sacrifice of his artillery. Such must have been the result had Melas sought and defeated him north of the Po, or had he been beaten at Marengo. His confidence was justified, not by the excellence of his precautions in case of defeat, but by the calculations which assured him that his most critical movements would be unmolested.

CAMPAIGN OF 1805.

(Maps No. 7 and No. 4.)

The Austrians wished to dispose their own forces in Germany on the defensive while awaiting the junction of the Russian army. See Map No. 7.

To this end the Austrian army, nominally commanded by the Archduke Ferdinand, but really directed by General Mack, and numbering 84,000, marched through Bavaria to Ulm. Covered in front and on the right by the mountains of the Black Forest, Mack probably expected to maintain his position against any available French force till the Russians should arrive; and, with Ulm, he would secure the grand primary object in all wars between France and Austria in Germany, namely, the possession of the valley of the Danube.

Taking the Austrian base as extending from Egra on the north to Steyer on the south, the army at Ulm had three main lines of retreat—namely, that of Nuremberg north of the Danube; that of Ratisbon along the river; and that of Augsburg-Munich south of the Danube. Austrian base and communications.

Napoleon's object was to interpose between Mack and the approaching Russian army, and to destroy the Austrians while thus isolated. Napoleon's object.

His different corps were thus directed from the Rhine on the 26th September:—

The cavalry under Murat, supported by part of Lannes's corps, entered the defiles of the Black Forest, pushing through to Freudenstadt, Roth- Feints on the Austrian front

cover the advance against the flank. weil, Neustadt. This was to induce Mack to believe that the French army would advance in that direction.

Lannes passed the Rhine at Kehl, and with his main body took post on the Stuttgart road to cover the movement of the other corps; after which he moved through Stuttgart on Neresheim. Napoleon with the Guard followed Lannes.

March of the French columns.	Ney	passed the Rhine at Carlsruhe,	moved on Stuttgart-Heidenheim.
	Soult	" " Spire,	" Heilbronn-Nordlingen.
	Davout	" " Mannheim,	" Neckar-Els-Oettingen.
	Marmont	" " Mayence,	" Wurzburg-}
	Bernadotte,	from Hanover,	" Wurzburg-} Eichstadt.
	Bavarian corps,	" Bavaria,	" Wurzburg-}
Total, 180,000.			

The columns of Lannes, Ney, and Soult were masked by the cavalry of Murat, which skirted the Black Forest, and occupied the defiles leading from Ulm to the Stuttgart-Heidenheim road.

The next movements to the Danube were:—

French form front to the Danube.	Right wing,	{ Ney Soult Lannes Murat The Guard }	on Donauwerth.
	Centre,	{ Davout Marmont }	" Neuburg.
	Left,	{ Bernadotte Bavarians }	" Ingolstadt.

Austrians change front to the Danube. When Mack learned the approach of the French army to the Danube, he changed front to the right on that river—left at Ulm, centre at Gunzburg, right at Rain.

6th October.—Soult seized the bridge of Donauwerth.

French cross Austrian communications, 7th October.—Murat passed there, forced the Lech and seized Rain.

The Austrian right (lately the rear-guard), under Kienmayer, fell back on Aicha.

Davout and Marmont issued from Neuburg towards Aicha.

8th October.—Soult from Donauwerth towards Augsburg.

Ney up the left bank of the Danube to Dillingen.

and close upon the enemy. Murat and Lannes moved up the right bank, and at Wertingen defeated an Austrian corps which was marching to support the right.

Kienmayer, far outnumbered by the approaching corps, fell back to the Isar.

9th October.—Soult at Augsburg.

Marmont at Augsburg.

Davout moved by Aicha.

Murat at Zumarshausen.

The Russian army had passed Linz on the Danube 180 miles east of Munich.

Mack now changed front to the right, thus facing his base.

Right towards Memmingen.

Centre between Gunzburg and the Iller.

Left at Ulm.

French movements :—

Bernadotte and Davout on Munich.

Soult by Landsberg on Memmingen.

Lannes, Murat, and Marmont, under the Emperor, moved on Ulm by the right bank.

Ney, on the other bank, was reinforced to 40,000. He was ordered, See Map 1st, To close the roads to the Bohemian frontier; 2nd, To cover the French No. 4. communications with Wurzburg against an irruption of the Austrians from Ulm; 3rd, To approach and mask Ulm by closing the issues from that town on the left bank. At the same time, he was to secure his communications with the Emperor by occupying the bridges on the Danube as he moved up the bank.

In order to give coherence to the forces immediately opposing Mack, and to leave himself at liberty to move towards the Russians with the rest of the army, Napoleon placed the corps of Lannes, Ney, and Murat under Murat. That general, misconceiving the situation, and the object of his chief, ordered Ney to bring his forces across to the right bank. Ney only obeyed so far as to send one division.

In a council of war the Austrians determined that the Archduke Ferdinand, with 25,000 men, should open a passage to the base by the route Heidenheim-Nordlingen. Mack held Ulm with the rest to protect the Archduke's movement, expecting afterwards to be able to throw himself on the other flank into the Tyrol.

Austrians
change front
to the proper
rear.

Austrians
attempt to
traverse the
French com-
munications.

On the day when the Archduke's movement was begun, one of Ney's

divisions had passed to the right bank, another had left Gunzburg to join it; Dupont's was at Albeck. On the 11th October, Dupont, moving towards Ulm with 7000, met the Austrian corps, and after a long conflict, in which he inflicted great losses on his adversary, he fell back on Albeck, and thence on Langenau.

12th October.—Napoleon at Augsburg heard of the movement of Ney's corps to the right bank, and directed the following movements:—

The Guard on Gunzburg.

Marmont on the Iller.

Lannes opposite Elchingen on the right bank.

Soult to Memmingen.

Mack, learning Dupont's retreat, ordered a corps to pursue him, while another moved on Elchingen to close that issue on the flank of the Archduke's column against the French.

13th October.—Soult captured 5000 men of the Austrian right wing in Memmingen; and an Austrian division which had come from Ulm to reinforce that point retired by Kempten to the Tyrol.

Elchingen to
Ulm, 7.

The Austrian corps at Elchingen attacked and burnt the bridge there, driving the French to the other bank.

Ney rallied his two divisions on the right bank, and prepared to lead them back across the river.

Lannes's corps was to support Ney.

Marmont to relieve Lannes.

Soult to Achstetten to close the Biberach road (by which Mack might gain the Tyrol).

Dupont, who had quitted Albeck, to return thither.

French con-
centrate
round Ulm.

14th October.—Ney having restored the bridge of Elchingen, forced the passage, and drove the Austrian corps into Ulm.

15th October.—Lannes and Murat passed the bridge of Elchingen.

Marmont replaced Lannes on the Iller.

Soult approached Ulm by the Biberach road.

The Austrian corps which had fought before Albeck was intercepted at Neresheim by Dupont and Murat, and capitulated. The Archduke, who had joined this corps with 3000 cavalry from Ulm, made good his retreat by the Nuremberg road.

Mack capit-
ulates.

19th October.—The Austrians in Ulm, 30,000, capitulated.

COMMENTS.

The line of the Mayne afforded to Napoleon the rectangular base necessary for securely operating against the Austrian flank or rear. The columns advancing from Wurzburg covered the roads on which they moved, and those which came from the Rhine, though they were moving to a flank, could always, if threatened from Ulm, form on the same front as the others, and cover roads which led towards the angle of the Rhine and Mayne. For instance, Ney found at the successive points of his march, namely, Stuttgart, Goppingen, Heidenheim — and Lannes at Stuttgart, Schondorf, Aalen, Nordlingen — roads leading directly on Mayence or Wurzburg. The whole movement might have been made from those two last-named places; but to have assembled the army there would have betrayed the design, which was concealed, or rendered doubtful, by the approach of the right wing from the Upper Rhine.

When Mack changed front to the line of the Danube from Ulm to Rain the French army was still entirely beyond his flank. Napoleon's movement had therefore been directed exactly on that part of the Austrian rear where Mack's retreat, had he attempted it, would have been completely intercepted.

Direction of
the French
march exactly
calculated.

So far, then, the operation had been assured. But now the difficulties began; for the Austrians might, on finding themselves intercepted on their main line to Ratisbon, retreat either by Augsburg-Munich, south of the Danube, thus evading their enemy, or by the line Heidenheim-Nuremberg, crossing his communications. It was to guard against both contingencies that Napoleon now made the change of front to his right, which was accomplished on the 9th October, by which the Austrians, with the exception of Kienmayer's corps, were completely intercepted. But this was not effected without exposing the French communications, which now lay in the prolongation of the right flank towards Wurzburg and Mayence. The situation is almost the same as that on the Po, when Napoleon advanced towards Marengo, except that he now possessed a great superiority of force over his adversary. Now, as then, the wings of the army were separated by a great river. By a rapid advance he was trying to close with his adversary, who, as at Alessandria, was resting on a fortress.

Operations of
1805 com-
pared with
those of 1800.

Consequences
if the Austri-
ans had made
a concen-
trated effort
on the side of
Nuremberg.

Soult's corps, like Desaix's, was seeking to cut off his retreat on one flank; Ney's corps, like Moncey's, was covering the communications on the other. And in the earlier course of the two campaigns a similarity is evident. The line of the Mayne corresponds to the frontier of Switzerland, affording, with the Rhine, a rectangular base; the advance from Wurzburg to the march of Moncey; the approach of the right wing towards the Austrian front, to the feint of Thurreau, but with the difference that Lannes and Murat were not prevented, as Thurreau was, from joining the main body. This circumstance, joined to the excellence of the communications, and the complete security of the flank march which had been in the former campaign so critical, gave to the later operations a much greater degree of certainty, security, and completeness. On the other hand, the much greater extent of the Austrian base in Germany than on the Mincio rendered the intercepting movements also much more extensive; and, powerful as was Napoleon's army, the effort to bar all the roads by which the Austrians could reach their base, had so attenuated his line, that if Mack had marched on Albeck with his whole force instead of a single corps, he would have broken through the toils. Jomini says of a concentrated retreat on that side by the Austrians, "This movement was the more to be feared, since the enemy, in directing his march on our rear, would have seized our parks, our depots, and our means of transport."

CAMPAIGN OF 1800 IN GERMANY.

(Maps No. 4 and No. 7.)

Austrian
attack on
French com-
munications
fails.

The first period of this campaign, which has already furnished an example (Part III. chap v.), ended with the retreat of the Austrians into Ulm, and behind the Danube. Moreau now attempted various manœuvres to dislodge Kray. On the 20th May he directed the right wing on Augsburg, and retired the left and centre, drawing them southward. Kray resolved to attack Richepanse's corps, which was posted between the Danube and Iller, to cover the communications with Schaffhausen. But the enterprise (5th June), badly combined, failed. Richepanse, reinforced in time, repulsed the attack, and the Austrians retired into Ulm.

Moreau now advanced to the Danube. He was still based on Schaffhausen, with which he communicated by Memmingen; and his right,

moving from Augsburg towards Blenheim, was thrown forward to an extent that would have dangerously compromised his communications under ordinary circumstances. But all Kray's attempts against Moreau's left, the vital point, had been defeated. Therefore Kray was restricted to the defensive, and Moreau could extend his right without imprudence; for he might assume, after late experience, that the attempts of Kray against his left would not succeed.

To dislodge Kray from the intrenched camp of Ulm, he resolved to throw his right over the Danube. He directed it from Augsburg on the portion of the river between Lavingen and Blenheim.

The centre at Gunzburg.

The left masked the passages from Gunzburg to Ulm, to hinder any offensive movement of Kray.

Richepanse's corps was placed at the confluence of the Iller and Danube, to cover the French communications through Memmingen to Schaffhausen.

Kray's army was about Ulm, except the corps of Starray, which was spread along the Danube as far as Donauwerth, to observe and prevent any enterprise against the communications.

16th June.—Starray's main force was at Lavingen with detachments at Gundelfingen and Donauwerth.

Lecourbe with the French right was opposite Blenheim.

The Austrians had partially destroyed all the bridges down to Donauwerth.

18th June.—A French attack at Dillingen was repulsed; also one at Leipheim (above Gunzburg) by the French left. But these attempts, though unsuccessful, had the effect of deceiving Starray as to the real point of attack, and of keeping his troops dispersed.

Reconnaissances had proved that the bridges of Krenheim and Blenheim had suffered least, and it was resolved to pass there.

19th June.—Two divisions of the French right closed in opposite Blenheim behind a wood.

Centre moved towards the river.

Lecourbe's artillery silenced the Austrian guns in the villages.

A detachment swam across, followed by others on rafts, and established themselves in Krenheim. Sheltered by them, the workmen repaired the

bridge, and four battalions passed to make head in the villages against the enemy, till the bridge should be practicable for all arms. The divisions passed and captured three Austrian battalions which had come up piecemeal from Donauwerth.

Starray assembled 3000 or 4000 men at Hochstedt.

Austrian line
of Ratisbon
intercepted.

Lecourbe, after passing, detached one brigade towards Donauwerth to cover his rear, and directed the rest on Hochstedt. Starray was driven on Dillingen, and, by a second attack, behind the Brenz.

Moreau passed the centre over during the night; and the left was to join it on the morning of the 20th by Gunzburg if possible, but, if the enemy should be too strong there, two divisions were to move on Lavingen in order to cross with more certainty; one being left to mask Ulm and to keep up communication with Richepanse, who was then following the general movement to the right.

Kray left 10,000 men in Ulm, and drew his troops together, assembling them near Elchingen.

Park—Great
train of car-
riages with
heavy artil-
lery, stores,
baggage, &c.

20th.—Kray having resolved to march round the enemy's right and so recover communications with Ratisbon, sent his park to Aalen for Nordlingen.

Moreau had moved thus:—

Lecourbe on the road from Dillingen to Nordlingen.

Centre on the Brenz.

Left on Offingen to pass there, having been unable to pass at Gunzburg.

The detached division at Leipheim.

Richepanse towards Gunzburg.

Kray marches
round Mo-
reau's out-
ward flank;

Moreau was evidently quite unsuspecting of Kray's design, and had posted his troops to receive an attack down the Danube.

21st.—Kray marched to Heidenheim.

French right at Dischingen.

Centre in second line.

Left—Brenz and Danube.

22nd.—Kray to Neresheim.

Ulm to Neres-
heim, 35;

Moreau sent a reconnaissance to Neresheim, and discovered the retreat.

23rd.—Kray on Nordlingen.

Dischingen to
Neresheim, 3;

Lecourbe by Neresheim on Nordlingen, where he engaged the Austrian rear-guard.

24th.—Kray remained at Nordlingen, and marched in the night to Eichstedt.

25th.—Moreau followed to the Wernitz.

26th.—Kray passed the Danube at Neuburg.

He had thus recovered his communications with Ratisbon and Vienna.

and recover
his commu-
nications with
Ratisbon.

COMMENTS.

When the armies fronted each other on the Danube, each was extended in the prolongation of the line by which it communicated with its base. Yet Moreau ventured to make an offensive movement with his right, or outer wing. He had concluded that, the enemy being by former repulses restricted to the defensive, *the reciprocity of the situation no longer existed*. For all the danger of the flank position lies in the risk of the adversary attacking the inner flank or wing. If it can be assumed that no such attack will be made, there is no more risk in operating from a flank position than is involved in the chance of a failure followed by a pursuit; nor need that necessarily entail the loss of communications on the part of the defeated portion of the army. Such was the reasoning on which Moreau based his operation.

His mode of executing it was uncommonly bold and hardy. So confident was he that Kray would make no counter-attempt on the southern bank against the French communications, after he felt the pressure on his own, that all the army, except Richepanse's corps and one other division, were thrown across the Danube, and the road to Schaffhausen was left absolutely uncovered.

Had Kray attempted to retreat by the southern bank to Munich, Richepanse and Ney's division would have delayed his march till the rest of the army had recrossed. But in the battle which would have ensued, each party would have fought with its face to its proper rear.

All Moreau's operations on the left bank were based on the assumption that Kray would come directly down the Dillingen road to break through. In that case his dispositions for obtaining the support of his other corps were extremely good.

Kray evaded both alternatives of action by marching round the outer

flank of the adversary. Had Moreau extended his right to provide against such a movement, he would have weakened his line beyond what he was willing to venture. We have seen that Napoleon never hesitated in such a case to throw for the whole stake; but the different modes of action are due to the difference in the characters of the two generals. Expecting Kray to attack in the valley of the Danube, Moreau would have thought it foolhardy to extend towards the Neresheim road.

By marching his park through Aalen, Kray freed the direct line to Nordlingen from Heidenheim of impediments; and at the same time the army, moving by that line, completely covered at Neresheim the march of the park.

CHAPTER VII.

GENERAL CONCLUSIONS FROM THE FOREGOING EXAMPLES.

THE operations which have been described supply certain grounds for judging the merits of any enterprise against an enemy's communications.

First, we learn that it is not sufficient to seize *any* point in the enemy's rear. The choice of this point is very important.

When armies are manœuvring near each other, and the operations are restricted to a narrow space, as in Radetzky's campaign, the assailant can determine with certainty the small area within which he will come in contact with the enemy, and he can so direct his march as, at the same time, to intercept and to close with him. When the Sardinians retreated from Vigevano, the Austrian general might feel assured that he would find them between Novara and Vercelli.

Direction to be pursued by an army that aims at its adversary's rear.

But when the turning movement is begun at a distance of several marches from the enemy, no such exact calculation can be made; and if the movement were directed straight on the position of the hostile army, the latter might, by a single march to the rear, evade the blow.

On the other hand, if the movement be directed against a point of the communications far to the rear, the assailant, on reaching it, must not only spread his forces over a space great in proportion to his distance from the hostile army, in order to close the lines which radiate from that army to its base, but must, by the obliquity of his march, leave a long line of communication open to a counter-stroke. The necessity of secrecy will generally prevent the assailant from making reconnaissances until the desired point is reached, and being therefore almost in the dark as to the adversary's movements, he cannot concentrate his army on any par-

ticular line with the certainty of meeting the shock there. Meanwhile the pressure on the communications will have informed the enemy of the general direction of the movement, which he may take steps to frustrate by moving in mass in a direction where there is no adequate force to oppose him.

As an example of the impolicy of aiming a stroke too far to the enemy's rear, Hood's operations against Sherman's communications in 1864 are notable. When the Federal general began his march from Atlanta to the Georgian coast, Hood was operating against the communications on the Tennessee river, 200 miles off. Sherman's march was thus left unmolested; whereas had the Confederates, while menacing his communications, remained near enough to be aware of his movements, they might have followed and harassed the march through Georgia.

To give the greatest effect to such an operation, the movement should be directed *not more than a march or two in the rear of the rearmost point which it is calculated the enemy can reach by the time it is completed*, giving him credit for obtaining early intelligence and of retreating with promptitude when his resolution is formed, but also taking into account the motives which may induce him to delay to form that resolution.

Necessity of
closing on the
intercepted
army.

Having reached the point aimed at, it is essential not to await the enemy, but to close upon him with all possible celerity. This will not only relieve the assailant from uncertainty, and give him the power of operating to the best advantage in any case that may occur, but will, by narrowing the arc on which his front is extended, increase his means of concentration, and also enable him to secure his own communications against an effort of the intercepted army to break through. Thus, when Napoleon had drawn his forces close around Ulm, his right under Ney covered the roads to Wurzburg from Mack; whereas when he first crossed the Danube at Donauwerth, his right wing, in order to protect to an equal degree the communications with Wurzburg and bar Mack's retreat, must have extended from Donauwerth to Nordlingen—an extension which would have so weakened it that the Austrian army could not have been effectually opposed there. The difficulties of the French were in proportion to the extent of the space they must occupy between the river and the Ulm-Nuremberg road.

Donauwerth
to Nordlin-
gen, 18.

When part only of the enemy's army is intercepted, it will be better to

close on the intercepted portion than to follow the other. We shall see an example of this hereafter in the campaign of 1814, when Napoleon turned from Champaubert on Montmirail.

Since to assail an adversary's communications is to challenge him to immediate battle, the force which performs the movement must be proportioned to the audacity of the step. An inferior force may menace its enemy's rear, as Sir John Moore's army menaced Napoleon's line from Madrid to France; or a corps may inflict for a time great damage on an adversary's army by interrupting convoys and destroying roads and supplies; but unless it have a retreat open, it will probably suffer heavily for its presumption. Thus, when the Allies in 1813 were defeated before Dresden, Napoleon sent Vandamme's corps up the Elbe to intercept the retreat of their columns in rear of the Saxon mountains; but the French force, throwing itself across the path of the retiring army, was enveloped and destroyed. In the same campaign, Wrede's corps, trying to cut Napoleon off from France after the defeat of Leipsic, was swept aside at Hanau without effecting any part of its purpose. An inferior force so engaged must therefore compensate for its weakness by extraordinary advantages of position, or must be certain of immediate and powerful support, such as a close pursuit, by a co-operating force, on the rear of the coming foe, or an advance upon his flank by the main army. In any other case it is imperative that the intercepting force should be strong enough to engage on good terms wherever it may encounter the enemy.

The intercepting force must not be inferior to the enemy unless immediately supported.

The operation of throwing an army across an enemy's lines of retreat, as Napoleon did, is, in appearance, much more decisive and effectual than that of operating on a front parallel to those lines, as Radetzky did. But it is so chiefly in appearance. The troops, spread over a great space, cannot be strong enough at any point to resist the attack of the enemy in mass. Their front being parallel to their own line of communication with the base, a lost battle would be as disastrous to them as to the adversary. On the other hand, by retaining a front parallel to the enemy's communications, the assailant covers his own, and therefore preserves a relative advantage in case of battle; while, if the intercepted army seeks to evade an engagement by using a still enclosed line of retreat, it ought to be anticipated on that line and brought to action, for the assail-

Comparative advantages of partial and complete interception.

Ulm to Munich, 80.
Ingolstadt to Munich, 45.

Best course
for the assailant in general.

ant will almost certainly be nearer to some point of that line than the enemy. For instance, had Napoleon, in 1805, halted on the Danube instead of crossing it, his whole army would have been assembled in the space between the river and the Ulm-Nuremberg road. It would thus have been ready to confront Mack there; it would have closed the main line of Austrian communication, that of Ratisbon; and had the enemy sought to escape from Ulm by Munich, the French from Ingolstadt and Neuburg might have arrived there in half the time.

In general, then, the better course would be for the assailant, on attaining the point of the communications aimed at, to move rapidly along them till close to the opposing army, and then to manœuvre so as to force that army to form front to a flank. It will thus be compelled to engage at the greatest relative disadvantage if it determines to fight, and if it escapes by a line still open, the territory it had occupied will be gained without a blow.

Best course
for the general of the intercepted army.

Concentration
indispensable.

The commander of an army that feels the grasp of a formidable enemy on its communications is not in a position which admits of pause or deliberation. His first step must be to concentrate his forces; till that is effected he can only attempt to retreat under penalty of sacrificing all the troops that have not joined him, and the more extended his front the greater will be his danger. But if the concentration be accomplished while the enemy is yet at a distance, his hope of safety must lie in the promptitude of his movements. Whatever course he resolves on, whether to break through the cordon or to evade it, it is indispensable that he should operate with his army entire. To divide his forces for any purpose will be to play the adversary's game. And the best course will generally be to strike boldly at the communications of the enemy, for a success there may retrieve the campaign. Had Melas moved promptly to the Ticino he might have been in Milan on the 14th June, while Napoleon was seeking him on the Bormida. And Mack might have recovered his base without loss of credit had he struck with his whole army towards Nuremberg. Still, meet it as he will, a sustained movement against his communications by superior forces must cause a general to lose ground in the theatre, and to abandon his enterprises, though he save his army.

PART IV.

OPERATIONS ILLUSTRATING THE RELATIONS BETWEEN THE FRONTS OF OPPOSING ARMIES, WITHOUT SPECIAL REFERENCE TO THE COMMUNI- CATIONS WITH THE BASES.

CHAPTER I.

THE MANNER IN WHICH PART OF AN ARMY MAY HOLD IN CHECK OR RETARD A SUPERIOR FORCE OF THE ENEMY DURING AN OPERATION: THIS MATTER BEING NECESSARY TO THE DISCUSSION OF THE GENERAL SUBJECT STATED ABOVE.

It has been already said that in very few countries can a large body of troops move in order of battle, even for a short march. It must of necessity, even when moving in the expectation of an immediate engagement, form lengthened columns on the roads. When in this formation, only the heads of the columns can be deployed for immediate action; and to bring the army from the order of march to the order of battle is a work of time. Therefore it may, in most countries, be checked for a short time by a force, deployed in order of battle, only a little superior to the heads of the advancing columns. And the uses to be made of this circumstance are manifold; it is not too much to say that, rightly employed, it is the most effective weapon in the military armoury; but only one or

The march of a column may be retarded by a very inferior force.

two modes of applying it need be adverted to, for the better understanding of this part of the subject.

The retarding
force must
engage only
partially,

If a body of troops were to remain drawn up to oppose the advance of a superior force, on a plain, where the whole formation was visible, the attempt would be futile and disastrous. The enemy would at once attack with superior force, and compel a costly retreat under penalty of rout or destruction. But skilfully disposed, in a good position, across the path of an adversary advancing in an ordinarily broken and difficult country, the risk is greatly reduced. If the armies have been manœuvring near each other, with numbers and positions constantly changing, and plans and combinations only to be guessed at, the leader who comes on such an obstacle in his path cannot, at first, know the amount of force which bars his way sufficiently well to begin an immediate battle. He will generally pause, reconnoitre, and feel his way; and will defer a general attack till he shall be ready to deploy a force sufficient to render him confident of success.

withdrawing
when out-
numbered.

In the meanwhile the commander of the smaller force must watch carefully the dispositions of his adversary, and combine, in an unusual degree, resolution with prudence. For if he were to engage the whole of his troops throughout the extent of their front, it would be out of his power to withdraw when the adversary had deployed a superior force, and he would be outflanked and heavily defeated. On the other hand, if he were to give way before the enemy had made a considerable deployment, the advance which it was his business to check would not be retarded. He must occupy his ground to the last moment possible without committing himself to a general action, and must then effect an orderly retreat. At the first opportunity offered by the ground he must repeat the manœuvre. Meanwhile the adversary will have again formed order of march, and, on approaching him, must once more form for battle,—with more or less promptitude in proportion to the confidence he may feel that the obstructing force is still inferior to him. In this way the day's march, which, if unopposed, might have stretched to twenty miles, may be reduced to six or three; and time may thus be gained for employing to decisive advantage the rest of that army which uses the retarding force.

“One secret of retiring,” says Marmont, “is to move off the army

betimes, leaving a strong rear-guard, which delays to march as long as possible without compromising itself, and to take a defensible position at such a distance that the enemy cannot arrive till three hours before sunset. Whatever his ardour for the combat, he will then not have time to make the necessary dispositions."

EXAMPLE OF A FORCE RETARDING THE ADVANCE OF A SUPERIOR ENEMY.

(Map No. 10.)

In 1815 Zieten's corps occupied the line of the Sambre, covering the road from Charleroi to Brussels; and when Napoleon advanced, it was the business of Zieten to oppose the progress of the French until Blucher and Wellington could concentrate their forces behind him.

The French columns advanced to the Sambre at three points, namely—
Marchienne, Charleroi, and Chatelet.

Marchienne
to Chatelet,
6.

Zieten's 1st brigade was in and around Fontaine l'Eveque;
The 2nd in Marchienne, Dampremy, La Roux, Charleroi, Chatelet, and Gilly;
3rd in Fleurus, Farciennes, Taminés;
4th in Moustier-sur-Sambre, nearly to Namur;
Reserve Cavalry about Gosselies.

When the French columns approached the Sambre, and the direction of the movement was apparent, Zieten ordered

The 1st brigade to Gosselies;
The 2nd to defend the passages threatened, until the 1st should have traversed its rear, and then to retire towards Gilly;
3rd and 4th to concentrate as rapidly as possible on Fleurus.

Charleroi to
Fleurus, 9.

Thus the weight of the advance was opposed by the 2nd brigade, about 8000 strong.

The line of the Prussian outposts had extended on a front from Sossoie to Thuin on the Sambre. These were driven in about four in the morning. The advanced-guard of the left French column attacked the Prussian outpost in Thuin, and drove it on Marchienne, which was defended by a battalion and two guns. The bridge was barricaded and held against several attacks, after which the defenders, outnumbered, retired through Dampremy upon Gilly. In Dampremy was part of a battalion with four guns, which also retired upon Gilly, while the battalion from Marchienne marched upon Fleurus.

The advance
checked.

A corps of light cavalry, 2500 strong, supported by the Imperial Guard, formed the advanced-guard of the French centre column, and drove in the Prussian outposts in front of Charleroi, capturing a company in a village on the Sambre. The bridge and dyke of Charleroi were defended against a first attack, but carried by a second, when the defenders (one battalion) retired towards Gilly. By eleven o'clock the French held Charleroi, and Reille's corps was passing the bridge of Marchienne.

The passage of the French at these points rendered the situation of the 1st Prussian brigade, retiring from Fontaine l'Eveque, extremely critical. To facilitate its retreat, Zieten detached a regiment of infantry and a regiment of cavalry from the 3rd brigade, in reserve at Fleurus, to Gosselies. A brigade of the French cavalry corps approached Jumet while the 1st brigade was still beyond the Piéton, and threatened to cut it off, but was attacked and defeated by the Prussian cavalry. The 1st brigade passed the Piéton, and filed through Gosselies, covered by the detachment from the 3rd.

French advance checked at Gosselies.

The repulsed French brigade was supported by a light cavalry division of the Guard and a regiment of infantry, and again advanced on Gosselies, in conjunction with one division of Reille's corps from Marchienne; and followed the 1st Prussian brigade to Heppignies, where it formed order of battle, and drove the head of the French attacking column back towards Gosselies. The Prussians then retired on Fleurus.

French advance checked at Gilly.

About two o'clock the 2nd brigade concentrated near Gilly, the right on Soleilmont, the left on the Sambre at Chatelet, where a detachment from the 3rd corps defended the bridge. The nature of the country concealed the extent of the force; the French generals paused to reconnoitre before attacking; the Emperor himself made a reconnaissance, and ordered an attack, the dispositions for which were completed about six o'clock. The commander of the 2nd brigade, threatened by overwhelming numbers, withdrew it to another position in rear, but not without considerable loss from the charges of the pursuing cavalry, which, however, was presently checked by Prussian horse from the reserve at Fleurus. The 2nd brigade then took up a position in front of Lambusart, from whence, after again checking the French, it retired, protected by cavalry, to Fleurus. The 1st brigade reached St Amand about eleven at night; and the whole corps (four brigades) was at that hour concentrated between St Amand and Ligny.

French advance checked at Lambusart.

In this way two columns—one, the left, of 45,000, the other, the centre, of 64,000 men—were retarded by two brigades, each about 8000 strong, so that between eleven o'clock in the morning and nightfall they only advanced four or five miles. And this was in a country more than commonly free from obstacles, and affording no marked advantages for defence.

When an army makes a compulsory retreat after a defeat, it is not in a condition at once to renew the contest. "A beaten army," says the Archduke Charles, "is no longer in the hands of its general." It no longer responds to his appeal. The troops that have been driven from the field will be slow to form front for battle—confusion, too, will be added to despondency, for regiments will be broken and mixed, artillery will be separated from its ammunition, supply-trains will be thrown into disorder by the sudden reflux, and the whole machine will be for the time disjointed. It is partly to provide for this that generals usually keep part of their reserves out of action, in order to cover the retreat.¹ The enemy must form columns to pursue—the heads of these may be checked, and the pursuit retarded; and time will thus be given to restore order, and to take advantage of favourable ground to make another stand.

On the other hand, it is not necessary for the victorious leader to launch his whole army in pursuit. If the enemy's entire concentrated force has been engaged, he will naturally follow it with his whole army. But if he has fought with only a portion of the enemy, and has other and better uses than pursuit of it for part of his own forces, he may detach a corps to press the rear of the beaten troops. The retreating general will be unable for some time to ascertain what amount

Subject of the chapter continued.

Operation of a rear-guard.

Only part of an army need pursue.

¹ The proper use of reserves in battle is chiefly a tactical question, and discussion of it would be out of place here. But the student must not suppose that the primary object in retaining reserves is to cover possible retreat. On the contrary, it is to have the power of turning the scale at the crisis of the fight by throwing in fresh troops. Perhaps the most difficult of all decisions a general can be called on to make lies in this—whether, when the battle seems inclining against him, he should throw in every man in a supreme effort to attain success, or decide to resign himself, for the time, to failure, and use his reserves to enable him to make an orderly retreat. Napoleon's principle was to play for the whole stake, and though it ruined him at Waterloo, it had won for him before that many a critical fight.

of force is pursuing—for all he knows, the whole of the army that has just beaten him may be on his track; he is compelled, perhaps, to pass by positions which he might, indeed, with the troops in hand, hold against the real pursuing force, but which he could not venture to occupy with the chance of being again attacked by the whole weight of the enemy. And if at last he does rally his corps and turn on the pursuer, the latter must at once take up the part of a retiring force, whose business it is to retard the enemy, and will fall back upon the main army, which, in the meantime, should have found time to effect its purpose.

Comparative
strength of
pursuing
force.

As a rear-guard is seldom more than a fifth or sixth of the total force, especially if it be formed entirely of the troops of the reserve, it follows that the pursuing force, in order to press confidently on the rear-guard, attacking boldly, and augmenting the disorder, need not be more than a third of the beaten army. Thus two-thirds of the victorious force (supposing it to have been equal to its adversary at first) will be disposable elsewhere.

Course of the
defeated
bodies.

The chance of the defeated general resuming the offensive will then depend partly on the nature of the defeat he sustained in the field, partly on the conduct of his rear-guard. But it may depend still more on what the main body of the enemy, operating elsewhere, may be able in the meantime to effect. If the defeated general fought the action with only part of an army, and is driven by his retreat more and more apart from the rest, his first endeavour will be to effect a reunion; and if he finds that the other portion of the army has also been defeated, he will feel that the first object of the leaders of both parts must be to recombine the broken host, by anticipating the victor in arriving at some possible point of junction.

Grounds
established
for pursuing
the subject.

Let us assume, then, that part of an army may *occupy* a superior force of the enemy, while the remainder strikes a blow elsewhere; that a beaten army may be pursued for a time by an inferior force; and that the course taken by parts of an army which have been separately defeated will be to retreat in order to recombine.

CHAPTER II.

THE EFFECT OF INTERPOSING AN ARMY BETWEEN THE PARTS
OF AN ENEMY'S EXTENDED FRONT.

It has been shown in former examples that operations against the communications of an enemy with his base, however decisive, are only practicable, except with corresponding risk, under certain geographical conditions. If these do not exist, such enterprises can only be undertaken under penalty of a reciprocal exposure of the communications of the assailant. Regard for these will generally induce commanders, unless unusually confident in themselves and their army, to seek safer methods of obtaining an advantage; and opportunities must be sought in the relations which the fronts of the hostile armies bear to each other at different junctures of the campaign.

There are various reasons, as has been already explained, why an army should, and generally does, operate on a front more extended than its line of battle. Thus in the Jena campaign, Napoleon's front from Saalfeld to Plauen extended 50 miles; the Prussians from Jena to Gotha, and thence towards Hildburghausen, were still more dispersed; and when the armies were assembled in presence of each other, the parts at Naumburg and Jena were separated by an interval of 20 miles. When, in 1805, Napoleon marched round Ulm, there were wide gaps between his columns; and, in fact, the case where great armies move for any distance on a front as contracted as their line of battle is comparatively rare. Under such circumstances opportunities must occur, amid the shiftings of the hostile bodies, for pushing into the intervals of an enemy's front and separating its parts; the front of a great army in motion being marked by a line passing through the heads of advancing columns.

CAMPAIGN OF 1796 IN ITALY.

(Map No. 5.)

At the outset, the Western and Southern faces of the mountains of North Italy marked the fronts of the opposing armies, the French on the one side, the Sardinians and Austrians in alliance on the other.

On the Western face, armies of about 20,000 men (the French being under Kellermann) on each side occupied and neutralised each other during the active operations which took place on the Southern side of the theatre. An English fleet on the coast restricted the French to the land.

Positions of
the French.

The part of the French army which Napoleon commanded, known as the Army of Italy, was extended along the mountains parallel to the coast between Nice and Genoa. Four gaps pierce this chain, leading from the strip of coast-line into Piedmont. On the left is the pass of Tenda—next that of Ormea—then the defile opposite Savona—and lastly the Bochetta pass, in which lies the road from Genoa to Alessandria.

The republic of Genoa was considered neutral territory, but, threatened by the French, was occupied by the Austrians.

Tenda to
Genoa, 80.

On Napoleon's left, two of his divisions, together 7000 strong, held the pass of Tenda.

Next, Serrurier's division (7000) was in and beyond Ormea, possessing therefore the issue of the mountain-chain.

The division of Augereau (8000) was at Mont San Giacomo, from whence there is a hill-path along the Northern slope communicating with the road of Cadibona.

The division of Massena (8000) was at Cadibona.

The division of La Harpe (8000) at Savona, one of its brigades, Cervoni's, being at Voltri.

French com-
munications.

The communications of the French with France were by the road through Savona to Nice.

Positions of
the Austro-
Sardinians.

The army immediately opposed to Napoleon was under the Austrian general Beaulieu. It consisted of 20,000 Sardinian troops and 30,000 Austrians.

Coni to Mil-
lesimo, 35.

The Sardinians under Colli had their headquarters at Ceva, and extended from the valley of Coni on the right to Millesimo on the left.

The right wing of the Austrians, or centre of the Allied army, under Argenteau, was at Sassello. Millesimo to Sassello, 20.

The left wing at Ovada and Voltaggio was under the immediate command of the general-in-chief, Beaulieu. Sassello to Voltaggio, 25

The base of the Sardinians was Turin, with which they communicated by Alba, Fossano, and Cherasco. Bases and communications of the Allies.

The ultimate base of the Austrians in Italy was the Mincio, with which they communicated by the lines—

Acqui-Casale-Milan
Acqui-Alessandria-Pavia ;
Novi-Tortona-Piacenza ;

and, intermediately, their object was to cover Lombardy.

The issues of the mountain barrier into Piedmont at Tenda and Ormea were in possession of the French. At the Savona pass works were constructed by the French, but there were no obstacles on the Austrian side. The Austrians held the Bochetta pass; and the fortifications of Coni, Mondovi, and Ceva, held by the Sardinians, closed the principal valleys.

The French army guarding the passes leading on its communications was necessarily greatly extended; but was nevertheless collected on the different points already mentioned. The Austro-Sardinians, occupying an equally extended front, were much more disseminated along that front; for numerous ridges shoot out from the main chain, which frequently subdivide, and the valleys lie between them. As these ridges are mostly much easier of passage than the main chain, the French, descending from any of their passes, could from one valley pass to another. Therefore the Austrians, pursuing the system common at that time, sought to guard all the avenues by occupying all; and thus their forces were greatly subdivided and separated from each other by the intervening ridges, while the French had the Nice-Genoa road (the Corniche) by which to communicate. The numbers of the Austro-Sardinians in the field were diminished by the garrisons of the fortresses in Piedmont, and were probably about equal to those of the French.

Napoleon's plan was to continue to hold the passes of Tenda and Ormea, but to draw together the divisions of Augereau, Massena, and La Harpe, for an attack upon the centre of the Allies, and to push in between

Beaulieu and Colli. This design was greatly favoured by an offensive movement which Beaulieu commenced, very opportunely for Napoleon.

Austrian plan. The Austrian general, on finding that La Harpe's right was extended to Voltri, conceived that the attack was about to be made on his left against the line Genoa-Novi. Therefore he resolved to meet this by moving his left wing on Voltri to attack in front; while his centre, under Argenteau, from Sassello, was to advance upon Savona, and enclose all the French eastward of that point, cutting them from Nice, and from their left wing at Ormea and Tenda.

Sassello to Monte Legino, 13. The path opposite Savona is double. One path comes from Sassello, the other from Cairo; and the Monte Legino stands between them. On the topmost ridge of that hill, works had been constructed and occupied by the French to close the road from Sassello.

Austrians extend. *10th April.*—The Austrians moved thus: Argenteau, with 10,000 men from Sassello, by Montenotte towards Savona; Beaulieu, with 11 battalions, in two columns, one by the Bochetta pass, one over the mountains, to Voltri, where the head of the first column attacked the brigade of Cervoni.

Cervoni held his ground for the day, and at nightfall retired to a position in rear.

11th April.—Argenteau, resuming his advance, was stopped by the works in the pass occupied by 1200 men. He attacked them unsuccessfully all day, and at night bivouacked in front of them, detaching a battalion to cover his rear in the valley he had come by.

Beaulieu, still advancing, again attacked Cervoni, but without driving him from his position.

Voltri to Monte Legino, 20. During the night, Cervoni, retiring from before Beaulieu, joined La Harpe, whose whole division, marching to the Monte Legino, drew up behind the works there, facing Argenteau.

French concentrate. Massena from Cadibona was directed into the Cairo valley; then he was to cross the ridge into the Sassello valley, and was then (apparently by the same path by which Argenteau had advanced) to attack the Austrian flank and rear.

Augereau from San Giacomo was to move on Cairo, and push back the Sardinians there, so as to prevent them from reinforcing Argenteau: this done, he was to turn towards Massena.

12th April.—La Harpe in front, Massena in rear, attacked Argenteau

whose force was entirely broken and dispersed, the remnants rallying at Dego.

La Harpe was directed to move first on Sassello, to drive back any troops there, and then to cross the ridge to a point between Cairo and Dego.

Massena's division, after the action, was pushed into the valley, occupying it from Cairo to the heights looking on Millesimo.

Augereau, from the Cairo valley, crossed the ridge to Millesimo.

Serrurier made false attacks from Garessio to occupy Colli.

Beaulieu advanced again; but encountering no enemy, and hearing the cannonade in the hills, halted for information.

13th April.—Augereau's division, and the brigades of Massena on the ridge, enveloped the Sardinians at Millesimo. Austrian
centre broken.

Beaulieu learnt what had befallen Argenteau. He turned back his own columns, and ordered such of the Austrian troops as were then north of the Apennines to concentrate on Dego.

14th April.—La Harpe joined Massena's right, and together they drove the Austro-Sardinians at Dego (4 battalions) upon Acqui, defeating also, next day, four other battalions, directed by Beaulieu upon Dego. Dego to
Acqui, 20.

Augereau mastered the ridge between the valleys of Millesimo and of Ceva.

Serrurier established communications with Augereau.

Beaulieu changed the point of concentration to Acqui.

Colli concentrated the Sardinians in the intrenched camp of Ceva.

15th to 22nd April.—Napoleon, posted on the principal spurs of the Apennines, had now interposed his division between the widely-separated wings of the Allies. He resolved to throw his weight against the Sardinians. French army,
interposed
between the
Allies, throws
its weight
against their
right.

He posted La Harpe at San Benedetto, where he might watch Beaulieu, and at once prevent an offensive movement against Napoleon's rear, or anticipate the Austrians at some point, such as Alba, should they seek to join the Sardinians. And to cover his communications with Savona, he left a brigade at Cairo.

Augereau then joined Serrurier before Ceva.

Massena crossed the ridge into the valley of the Tanaro below Ceva.

Millesimo to
Ceva, 10.

Colli retired to a position before Mondovi.

The Sardinian general, after repulsing an attack, retired to Mondovi. Pursued and driven thence, he retreated to Fossano.

Sardinians
retreat to-
wards Turin.

- Ceva to
Mondovi, 13. The French communications with Nice were now established by the line Ceva-Ormea.
- 23rd April.—Colli made overtures of peace on the part of the Sardinian Government. Napoleon, while treating, continued to advance.
- Austrians
move to
rejoin the
Sardinians. 24th April.—Beaulieu, with the design of joining Colli, moved from Acqui by Nizza towards Alba.
- 25th April.—Colli retreated to Carignano.
Serrurier occupied Fossano.
Massena occupied Cherasco.
- Acqui to
Alba, 25. Augereau occupied Alba.
Communications were established with Tenda, and the divisions there were ordered to invest Coni.
- French mass
still inter-
poses. 26th April.—The French united on Alba, and Napoleon resumed his advance on Turin.
- Alba to Turin,
40. 27th and 28th April.—The Sardinians concluded a separate peace, giving up the fortresses of Alessandria, Tortona, and Coni, and the citadel of Ceva, to the French, who obtained the line of the Mont Cenis for their communication with France in subsequent operations; and Napoleon now directed his army against Beaulieu, who fell back across the Po, at Valenza.
- Result.

COMMENTS.

- Bonaparte's
instructions. The instructions given by the Directory to Bonaparte impressed on him "that the most immediate interest of the French Government should be to direct its principal efforts against the army and territories of the Austrians in Lombardy." They go on to say,—“It is easy to perceive that every military movement against the Piedmontese or their territory is in some way indifferent to the Austrians, who, as was shown in the last campaign, trouble themselves very little about the disasters of their allies, and who in moments of danger, far from seeking effectually to protect them, immediately separate from them and occupy themselves only with covering the country which belongs to them, and which furnishes them abundantly with the resources of which they stand in need.”
- Reasons for
striking at
the centre. There was, therefore, political as well as military reason for striking at the centre and separating the Allies. But, having separated them, Bonaparte wisely departed from the instructions of the Directory, in turning

with his main force against the Sardinians, for, in compelling them to make peace, he secured the communications with France through Piedmont, which were necessary for a sustained campaign against the Austrians in Lombardy.

In the first movements, the extension of the Austrian line was greatly increased by the march of their left from Voltaggio to Voltri. While Beaulieu and Argenteau were thus separating, the French forces immediately opposed to them were concentrating against the centre.

Massena at Cadibona might, on the night of the 11th April, have readily joined La Harpe in directly opposing the Austrians in the Sassello-Savona route. But by defeating them there by a front attack they would be merely driven back on Sassello. It was always a characteristic of Napoleon to direct his troops where their action would be most effective. As Argenteau had already been stopped by the garrison of the works on the Monte Legino, it was certain that when La Harpe's whole division had come to the support of that garrison, the defence of the pass was amply secured. Therefore Massena was directed by the western path, on the Austrian flank and rear. Massena's circuitous march.

Upon the defeat of Argenteau at Montenotte, Beaulieu was compelled to pause. For though he was prepared to attack the French in front of him, yet it was on the assumption that Argenteau would co-operate by an attack on their flank or rear; and this was only possible on condition that the French should be concentrating towards Voltri. Therefore, when Beaulieu found they had retired from that point, he knew that they must be either beyond the reach of Argenteau by retreating westward beyond Savona, in which case he would presently be apprised of it by the advanced-guard of his colleague issuing from the pass—or that they had concentrated for an attack on Argenteau, in which case he might, if he should advance, find himself single-handed in the presence of a victorious enemy, as would indeed have been the case. Therefore, as soon as he was certified of disaster to his colleague, he hastened to recover his communications with Lombardy, which he might else find to be endangered. Austrian offensive movement disconcerted.

Upon the defeat of Colli at Millesimo and his retreat to Ceva, the mass of the French was interposed between the wings of the Allies. Deducting losses on both sides, Napoleon's four divisions (Serrurier being in Why the divided army, though supe-

rior, could
not attack.

line on the 14th April) numbered about 30,000—while Beaulieu had only about 20,000 at Acqui, and Colli about 15,000 at Ceva. Therefore, unless they could concert a simultaneous attack, either allied force, if it assumed the offensive, might, and probably would, find itself opposed by superior numbers. The only course then was a joint retreat with a view to reunion—and this was what La Harpe at San Benedetto was meant to discover and to retard or prevent.

Object of the
assailed force.

Speaking of the evacuation of the strong position before Mondovi by Colli, Jomini says,—“His only aim was to gain time for the arrival of the army of Beaulieu; if he were to engage in an unequal conflict he ran the risk of a serious disaster and of being ruined: a methodical retreat, executed in time, seemed to lead most surely to his end.” This remark shows very clearly what must be the object of that portion of a divided army on which the enemy throws his weight—namely, to make a retreat which, while it is so slow as to secure the arrival of the other portion of the army at the point of reunion, is also sufficiently prompt to avoid the risk of a general action with a superior force. Whether Colli, in this case, rightly estimated the strength of the position which he abandoned, is not to the present purpose.

Necessity of
pressing a
divided
enemy.

It is not enough to pierce and divide the enemy's army; the advantage thus gained must be promptly followed up, or a subsequent reunion of the parts may nullify all the previous operations. Thus, while Bonaparte was held in check by the position of Colli before Mondovi, once unsuccessfully assailed, we learn that he called his generals to a council of war. “Convinced that the army would be lost,” says Jomini, “if the enemy had time to recover, they decided unanimously for a second attack, notwithstanding the fatigue and discouragement of the troops.” That is to say, the first stroke must be followed up by successive blows on one or both sides, which shall, at once, keep the enemy asunder, and destroy his force.

Effect of the
parts of a se-
parated army
having diver-
gent bases.

There was no doubt ample time after Beaulieu reached Acqui, on the 15th, for him to move behind the Tanaro to the aid of his ally, who was not driven from Mondovi till the 22nd. But it is probable that, besides the indisposition to help his ally adverted to in the instructions of the Directory already quoted, he felt hampered by the fact that in thus operating parallel to his communications with his base on the Mincio, he would be dangerously exposing them. This fact—that the Allies when

separated had divergent lines of communication and of retreat, and that their movements were influenced by the circumstance—is to be noted.

When Napoleon was advancing on the line Ceva-Fossano, the whole of the Sardinian forces—namely, those opposing Kellermann and those opposing Napoleon—were interposed between the two French commanders. It was therefore possible to repeat against Napoleon the game of combination which he had just played against Beaulieu. A small containing force might have been left before Kellermann, and the remainder combined against Napoleon. It was to guard against such a contingency that Bonaparte, on the 25th, from Fossano pressed the commander of the right of Kellermann's army to issue from the Alps towards him. But, besides the want of military skill to perceive and execute this, it is also to be observed, first, that, even when thus combined, the Sardinians would have been inferior to Napoleon in numbers—having been only equal to his single army at the outset; and, secondly, that the distance from Mont Cenis to Turin is so short that Kellermann, unless strongly opposed, might reach it in a single march and enclose their armies while he seized their capital. They were influenced by the same reasons which caused Mr Lincoln to spoil M'Clellan's combination in 1862. The Federal general wanted to combine M'Dowell's forces from Fredericksburg, where they covered Washington, with his own, at Hanover Court-House, interposing between Johnstone at Richmond and Jackson in the Shenandoah Valley, and concentrating for an attack on the former. But the Northern President, fearing to leave the capital uncovered, retained M'Dowell, and M'Clellan, left unsupported, was defeated.

New combination open to the Sardinians.

Why neglected.

See Map No. 8.

Lastly, it is to be noted, that when an army is extended over a space beyond its strength, the most fatal way of attacking it is on the centre. Had Napoleon executed the design which Beaulieu attributed to him of advancing through the Bochetta pass to turn the Austrian left, however successful might have been his first attacks, they could only have ensured that which it was his aim to prevent—namely, the concentration of the enemy.

Greater advantage gained by breaking the centre than by turning the flank.

CAMPAIGN OF ECKMUHL (1809).

(Maps No. 7 and No. 6.)

The maintenance of the war with France by the English in Portugal seemed to afford Austria an opportunity of effacing the results of Ulm

See Map No. 7.

and Austerlitz, and of breaking the power of Napoleon. So menacing was the aspect of the great German power, that the French Emperor, abandoning the pursuit of Sir John Moore's army to Soult, had returned to France to prepare for the anticipated campaign.

Armies as-
semble in the
theatre.

Early in the year the Austrian armies were behind their frontier lines of the Bohemian mountains and the river Inn ; and most of the French forces were on their own side of the Rhine. But when war was imminent, the Austrians, leaving 50,000 men under Bellegarde in Bohemia, assembled most of the troops which they had ready for the field, south of the Danube, on the frontier of Bavaria. On the other hand, the Confederation of the Rhine, by which compact the German territories along that river were open to Napoleon, gave him free access to the Danube. When the war began, the troops already assembled within the immediate sphere of operations were as follows :—

The Inn to
the Isar, 40.

The Austrian corps on the Inn were those of
Hohenzollern,
Rosenberg,
Archduke Louis,
Hiller,
Lichtenstein,
Kienmayer, ——— Total, 140,000.

Bellegarde, who was to operate north of the Danube, debouching from Pilsen and Saatz towards Amberg, 50,000. Behind these, great bodies of militia covered Vienna.

Napoleon's corps were thus distributed :—

Bavarians	on the Isar	30,000
Davout	Ratisbon	50,000
Oudinot	Augsburg	30,000
Massena	Ulm	30,000
Wurtembergers	on march for Ingolstadt	12,000
Reserve cavalry	Ingolstadt	15,000
Total		167,000

Behind the front of the French, the roads of Germany were covered with columns marching from the Rhine, including the Imperial Guard, and with the reserves of the German allies of France.

French bases
and communi-
cations.

Napoleon, based on the Rhine and Mayne, had for communications any or all of the roads leading from the Danube, between Ulm and Ratisbon, to Wurzburg, or to the fortresses on the Rhine. Those mainly relied on,

as most secure, were probably the roads from Strasburg, Mannheim, and Mayence to Ulm.

The Archduke Charles had for immediate lines of supply those of Steyer-Braunau and Linz-Passau. If he should operate north of the river, he must of course rely on the northern portion of his base, Budweis-Theresienstedt. Austrian base and communications.

Napoleon's object was Vienna; but as the Austrians took the initiative, his plan must depend on the opportunities which their movements might offer.

The Archduke's design was to pass the Inn, push the Bavarians from the Isar, and, crossing the Danube between Donauwerth and Ratisbon, cut Davout from the French army, and form a junction with Bellegarde on the northern bank. Austrian plan.

10th to 16th April.—The Austrians crossed the Inn thus:—

Hiller	}	at Braunau;
Archduke Louis		
Kienmayer		
Hohenzollern, below Braunau;		
Rosenberg	}	at Scharding;
Lichtenstein		

and reaching the Isar on the 15th, forced the passage thus, on the 16th:—

Hiller at Moosburg.	}	at Landshut.
Archduke Louis		
Hohenzollern		
Rosenberg at Dingolfing.		
Reserves in rear of the centre.		

Moosburg to
Dingolfing,
28.

On the right a brigade (5000) moved on Straubing.

On the left 10,000 from Wasserburg towards Munich.

The Bavarians, at Landshut, attacked in front and turned on both flanks, fell back to the Danube behind the Abens, between Neustadt and Kelheim, where they were reinforced by 12,000 Wurtembergers.

17th April.—The Austrians moved thus:—

Hiller	.	.	.	from Moosburg to Mainburg.
Louis	.	.	.	Landshut towards Neustadt.
Hohenzollern	}	.		Landshut towards Kelheim.
Lichtenstein				
Kienmayer				
Rosenberg	.	.	.	Dingolfing by Eckmuhl towards Ratisbon.

Austrians
approach the
Danube.

Moosburg to
Mainburg, 14.

Bellegarde was to draw down on Davout's rear.

French movements:—

Massena moved from Ulm to Augsburg, and took command of the right wing.

Napoleon
orders con-
centration.

Napoleon arrived at Donauwerth from Paris, and ordered the following movements of concentration on the centre:—

Augsburg to
Pfaffenhofen,
34.

Right wing—Augsburg to Pfaffenhofen.
Left wing—Ratisbon to Abensberg.

See Map
No. 6.

18th.—Austrian front—

Ratisbon to
Abensberg,
22.

Left	{	Hiller	•	Mainburg.
		Louis		
		Kienmayer		towards Abensberg.
Centre	{	Hohenzollern		
		Lichtenstein		Rohr.
Right		Rosenberg—Langquaid.		

Rohr to
Ratisbon, 22.

French movements:—

Massena from Augsburg towards Pfaffenhofen
Davout to the right bank at Ratisbon.

19th.—Austrian movements:—

Austrians
separate.

Hiller to Siegenburg.
Centre
Right wing } towards Ratisbon.

French movements:—

French left
wing joins
the centre.

Davout placed a regiment in Ratisbon, and left the highroad along the Danube free for his baggage and trains. His infantry divisions marched in two columns, each of two divisions, one by Tengen, the other by Saalhaupt, by country roads, from whence they were to gain by cross-roads the highroad to Abensberg by Feking. His cavalry protected the movement by advancing on the road Ratisbon-Eckmuhl, and then following, through Dingling, the general direction on Abensberg.

At the same time the Archduke's columns were moving from Rohr by Hausen and Tengen, and from Langquaid by Schneidart and Saalhaupt, towards Ratisbon.

The inner flanks of the hostile columns necessarily encountered; and they sidled round each other, fighting principally with the rearmost

divisions, while the leading troops continued their advance. Davout's two leading divisions made good their communications with Abensberg by Feking, and the other two held Tengen. The Austrian march on Ratisbon was stopped, and the Archduke remained facing the French front.

Austrian
right wing
halts.

20th April.—French movements:—

Davout with half his corps to hold Tengen.

The other half under Lannes on Rohr.

Bavarians on Arnhofen.

Wurtembergers between Lannes and the Bavarians.

Massena from Pfaffenhofen on Landshut by Freising and Moosburg.

Combination
against Aus-
trian left
wing.

Abensberg to
Rohr, 7.

The result of the attacks against the Austrian left wing which followed this last combination was, that the French reached Rottenburg—the Austrians were driven through Pfaffenhausen—and continued their retreat in the night upon Landshut.

Pfaffenhofen
to Landshut,
36.

21st April.—

Part of the Bavarians by Pfaffenhausen }
Lannes by Rottenburg } on Landshut,
Massena by Moosburg }

French pur-
sue the beaten
wing.

where they drove the Austrian left wing across the Isar.

The Austrian right wing took post across the Eckmuhl road, backed on Ratisbon, facing Landshut.

Bellegarde took Ratisbon.

French movements:—

Davout from Tengen to Paring and Schierling.

Part of the Bavarians and cavalry from Rottenburg to join Davout.

French re-
tarding force
interposes.

22nd April.—Bellegarde sent Kollowrath's division of the Bohemian army through Ratisbon to join the Archduke, who, leaving his left at Eckmuhl, attempted to throw his right to Abach, so as to issue from thence on the French rear.

Eckmuhl to
Abach, 9.

On the French side, Bessières with two divisions of infantry to pursue the beaten Austrian left wing from Landshut by Braunau. Two divisions moved between the Isar and Danube as a reserve.

Massena from Landshut, Lannes, and the cavalry joined the French forces towards Eckmuhl, and the left of the Archduke's immediate forces was attacked and defeated in the battle of Eckmuhl.

Combination
against the
Austrian

for a second blow. This successful, the consequent retreat widened the gap in the Austrian front.

Approximate
value of the
advantage of
concentric
over divided
action.

On the 20th, Massena being beyond the sphere of action, the sum total of the armies actually in presence of each other was greatly in favour of the Austrians by about 140,000 to 110,000. Yet Napoleon was superior to the force *immediately* opposed to him by about 80,000 to 70,000. And without Massena, he could still, after detaching 20,000 in pursuit on Landshut, have made the force on Davout's side next day superior to the Archduke's. Thus we get something like an approximate idea of the actual equivalent in force of the advantage possessed by the army whose action is concentric over that which is divided.

All these advantages were on the 18th within reach of the Archduke. If, instead of marching from Rohr on Ratisbon, he had moved on Kelheim, for a grand attack along a front extending from thence to Abensberg, he would have brought a greatly preponderating force against the French; and if, as was to be expected, they were driven over the river, he would have turned with his mass on Davout approaching from Ratisbon, and pushed him back on the lower Danube.

Advantage of
the concentric
against the
divided army
not due to the
moral effect
only.

These operations of 1796 and 1809 also proved how powerful an influence is exercised upon commanders of parts of armies by uncertainty as to what is passing elsewhere. So long as there is constant communication between the supreme directing authority and his dispersed subordinate leaders, so long may a coherent impulse be given to *all* the portions of an army. But when the intervention of a hostile force destroys this communication, the action of every part is checked. Combined action is the aim of a commander-in-chief, and combination is impossible when concert is destroyed. Nor is the apprehension which paralyses a commander who is thus separated from his colleague the result merely of uncertainty. For had Beaulieu from Voltri, or the Archduke from Tengen, advanced boldly on the enemy, each would have encountered a victorious and superior army. It would seem, therefore, that, under such circumstances, the only prudent course is to effect a reunion with the utmost promptitude, and that the advantages of the concentric position of the interposing army are substantial, and are only augmented, not altogether caused, by the moral effect of the situation.

There is one especial point of difference between Napoleon's operation

of 1809 and that of 1796. In the first case the containing force (Davout's) *was left in front of the Austrian wing*. In the second case the containing force (Cervoni's) *was altogether withdrawn*, and joined to the divisions which attacked on the side of Montenotte. It may be asked, why was not Davout withdrawn like Cervoni? or why was not Cervoni kept in front of the enemy like Davout? Very useful questions to consider.

The answer is, that *the sole use of the containing force is to prevent a reunion of the enemy's parts*. If it is not necessary to this purpose, it will be better employed at the point of attack. Had the Archduke Charles suddenly resolved, on the evening after the action of Tengen, to retrace his steps and rejoin the left wing, he might, if unopposed, have effected the concentration, and would have had, on the field of Abensberg, a great preponderance of numbers over the united forces of Napoleon and Davout. It was to prevent this that Davout was left in front of him. But had Beaulieu suddenly resolved, on the night of the 11th or morning of the 12th, to rejoin Argenteau, he could only have done so by retiring again through the passes and making a circuit round the other side of the mountains which separated them. But, long before he could make this circuit, the action at Monte Legino must be decided; and if he did make the attempt, Cervoni was powerless to prevent it, for he could not interpose—he could only follow Beaulieu. Therefore Napoleon rightly drew Cervoni towards that point where the action of his force would be most decisively important. We may therefore assume, that *when distance alone will prevent the separated wing of the enemy from joining the other, before that other may be attacked and defeated, the containing force should be withdrawn to the point of attack, unless it is required to cover the communications*.

Different ways of employing the containing force.

To sum up the effects of a successful operation of this kind, it appears—

1st, That either part of the separated army which stands to fight may find itself exposed to the blows of the full force of the antagonist, *minus* a detachment left to contain the other part; as is seen by the examples of Millesimo, Ceva, and Eckmuhl.

General deductions.

2nd, That by alternating such blows, the assailant may continue both to weaken his antagonist and to interpose between the parts.

3rd, That as the commander of a separated part of an army will be

playing the enemy's game if he stands to fight, his best course will be retreat for reunion; and that this will be best effected by taking advantage of every position to retard the enemy on both lines.

4th, That a commander who perceives an opportunity for separating the enemy, and overwhelming a portion of his force, need not generally be solicitous to cover his own communications during the operation, since the enemy will be in no condition to assail them.

Necessary
proportion of
the hostile
forces.

Lastly, It is necessary to remark that the force which aims at separating the parts of an enemy should be so superior to either part singly, as to *preserve a superiority after detaching a force in pursuit of the portion first defeated*; and that if the attacking force does not fulfil this condition, it will have no right to expect success.

CHAPTER III.

THE CASE OF INDEPENDENT AGAINST COMBINED LINES OF OPERATION.—CAMPAIGN OF 1796 IN GERMANY.

(Map No. 7.)

HAVING investigated the consequences which follow when parts of an army are separated and driven asunder, we come to the apparently different case of two armies allied, or of the same nation, which, when about to act against the common enemy, voluntarily separate, and operate against him by independent paths, and without concert.

The campaign of 1796 in Germany, besides illustrating this matter, has other advantages; for it took place in the same theatre as those of 1800, 1805, and 1809, which have already been discussed; and it is very useful to read in succession several campaigns which have been enacted in the same region, since we thus become aware both of the fixed value of certain points, and of the various methods by which different generals with various means and under diverse circumstances will operate for the same end. Everywhere glimpses are opened of new relations between different features of the ground, till at last we may be said thoroughly to *know* the theatre of war; that is, to understand all its conditions under every aspect, and to be able to deal with any problem it can offer.

The Austrians and French confronted each other at the outset on the ~~Hostile fronts,~~ Rhine, from Basle to Dusseldorf.

That portion of the Rhine formed the base of the French when they ~~French base.~~ entered Germany.

The base of the Austrians, as in other campaigns in this theatre, was ~~Austrian base,~~ the Enns river as far as the Danube—beyond the Danube, the mountains and the Moldau.

Roads from
one base to
the other.

Two roads unite the extremities of the hostile basis; namely—

1. Old Brisach-Memmingen-Landsberg-Munich-Braunau-Steyer.
2. Mayence-Egra-Theresienstadt.

In the centre there is a third great road, by—

Carlsruhe-Mannheim-Heilbronn-Nuremberg-Amberg-Klattau, to Budweis.

And several roads lead from the Rhine upon Ulm, thence by Donauwerth, Ingolstadt, to Ratisbon; from whence there are communications with both parts of the Austrian base.

Passages over
the Rhine.

The plain of the Rhine valley, straightened by the hills of the Black Forest, begins to widen a little below Basle till it reaches a breadth on that bank of ten to fifteen miles. The best passages over the river are at Huningen, Brisach, Strasburg, Selz (opposite Rastadt), Lauterbourg, Germersheim (opposite Philipsburg), Spire, Mannheim, Worms, Mayence. There are others between Strasburg and Spire, but they have the same issues.

Before the active campaign commenced, two generals on each side faced each other on the Rhine. The Austrian army of the Upper Rhine from Basle to Mannheim was commanded by Marshal Wurmser, to whom was opposed Moreau. The army of the Archduke Charles extended from below Mannheim to the Sieg river (near Cologne), to which was opposed the army of the Sambre-and-Meuse under Jourdan. The advantage in numbers disposable for the field was at the outset on the side of the Austrians, especially in cavalry.

Means of pas-
sage by either
party.

The French possessed only one fortified bridge, that of Dusseldorf. The Austrians had one at Mayence, another at Mannheim. Elsewhere, if either party wished to cross, they must force a passage or throw bridges.

The Austrians had intended to assume the offensive, advancing towards the Moselle. But the successes of Napoleon in Italy had their influence in this other theatre. Early in June, Wurmser, with 25,000 men, was detached to aid Beaulieu; and after this diminution of strength, the offensive plan was no longer practicable.

First object
of the French.

The French Directory, anxious to transfer the burthen of the war to Germany, ordered their generals to cross the Rhine. The first combination of the French had for its object to secure the passage of the river for Moreau's army.

Jourdan, throwing part of his force across at Dusseldorf, pressed back the Austrian right; and the right bank down to Neuwied being thus opened, he crossed there with his main force, and pushed the Austrian force north of the Lahn, back upon that river.

This movement was meant to draw the Archduke from Mayence; and it had the desired effect. Leaving 20,000 men in the intrenched camp there, he marched with the remainder of his army to the Lahn and turned Jourdan's left flank. The French general thus threatened, finding that the object of his advance was gained, retired beyond the river.—(19th to 21st June.)

The thin Austrian cordon from Basle to Mannheim, weakened by the draft for Italy, and deprived of the support of the part of the Archduke's army withdrawn from Mayence, now invited an attack. Moreau, after making (20th June) a false attack with his centre and left on the works covering Mannheim, marched 12,000 men up the Rhine, under pretence of aiding Bonaparte in Italy. Near Strasburg they were joined by 18,000 of the right wing marching down the river; and the whole, under the orders of Desaix, passed above Kehl, by flying bridges and boats, on the 23rd and 24th June. Mannheim to Strasburg, 86. Moreau passes the Rhine.

The Austrian left wing of the army of the Upper Rhine above Kehl was cut off by this movement, and assembled about Friburg.

The mass of the centre was between Rastadt and Mannheim.

The right was marching from Mannheim to join the centre.

The Archduke, with a portion of the other army, began his march from the Lahn to reinforce the Army of the Upper Rhine, when he heard of Moreau's passage, 26th June.

Pending his arrival, the position was this—

The Austrian left wing was at Haslach.

A detachment under Stein guarded the Kinzig valley.

A detachment under Starray the Rensch valley.

Austrian
positions.

The defiles to the Danube thus closed, Latour, who commanded in the Archduke's absence, awaited his arrival behind the Murg.

Moreau, after pushing the scattered Austrians back into the defiles, waited in the Rhine valley, posted from the Kinzig to the Murg, till the remainder of his centre and left from Mannheim should cross. A division of the right wing, under Laborde, was still on the French bank, from French positions

Brisach to Basle. It was opposed by a small Austrian corps; and throughout the advance into Germany, these corps neutralised each other on the side of the Tyrol, and may be left out of the general account.

On the 10th July, the Archduke having then come up, Moreau attacked him at Malsch; and having defeated his immediate left in the mountains, the Austrians retired on Pforzheim.

General Austrian plan.

It was at Pforzheim that the Archduke determined on his general plan. His first object was to regain the Danube, for he had great magazines about Ulm, and he was desirous of recovering communications with his left wing, under General Frölich, then retreating on a separate line through the Forest, followed by Moreau's right wing, under General Ferino. The Danube gained, his next object may be best expressed in his own words: "To dispute the ground foot by foot, without accepting battle; to profit by the first opportunity to reunite his divided troops; and to cast himself with superior, or at any rate equal, forces on one of the two armies of the enemy."

Frankfort to Pforzheim, 100.

The "divided troops" he alludes to are not merely his main body and left wing. He had left, of his own original command, about 30,000 infantry and 15,000 cavalry, under General Wartensleben, to oppose Jourdan in the northern portion of the theatre. The French general, considerably superior in numbers, had recrossed the Rhine, and pushed Wartensleben back across the Lahn and Mayne; and then, with his army considerably diminished by detachments to a corps under Marceau, left to besiege or mask Austrian garrisons in places on the Rhine, he continued to drive the enemy opposed to him along the course of the Mayne.

The historians of the war have left the numbers on both sides at different junctures in hopeless confusion; so that, taking any statement of them at the outset as a basis, it is impossible to reconcile subsequent accounts. The armies on both sides were probably reinforced frequently from the interior of their respective states; and both were greatly diminished—the Austrians to garrison places on the Rhine, the French to invest them, and to cover their own points of passage.

It is doubtful whether the French armies, after the first combination for securing the passage of Moreau had succeeded, were guided by any definite concerted plan beyond the continual advance on both lines against

the Austrian armies. Some writers ascribe to them a comprehensive design of uniting the two armies of the Rhine and the army of Italy upon the Inn, for a combined advance on Vienna. But the accomplishment of this was dependent on the progressive advance of each of the three armies against all resistance, across a large portion of the theatre; and a check to any one would destroy the combination. However this may be, the French generals in Germany appear to have been instructed to operate against the *outward* flanks of the Austrian armies: that is, Jourdan was to turn Wartensleben's right, and so press him out of the theatre; Moreau on attaining the Danube was to operate between the river and the Tyrol, so as to be ready to combine with the army of Italy. At any rate, this was the course followed, and the Archduke's design of combining his forces for an attack on one army was thereby greatly favoured.

Wartensleben's orders (he being inferior to Jourdan by 14,000) were to contest all practicable ground, retiring as slowly as possible, so as to afford opportunities for the projected junction.

13th to 19th July.—Wartensleben evacuating Frankfort retired upon Würzburg.

The Archduke retired from Pforzheim across the Neckar to Cannstadt and Esslingen.

18th July.—Moreau's centre on Stuttgart—his left on the line of the Austrian retreat.

The Archduke's retreat on Ulm was now secure. But his army was enfeebled by two causes: 1st, by the garrisons he had thrown into Mayence, Ehrenbreitstein, Königstein, Mannheim, Philipsburg—in all, 30,000 men; 2nd, by the defection of the contingents of Saxony, Suabia, and Baden, which states withdrew their forces when their territories were uncovered by the retreat of the Austrians. His numbers were thus reduced to—

24,000 infantry—11,000 cavalry,
Against 45,000 infantry— 5,000 cavalry;

Numbers of
the hostile
forces.

not counting the respective wings of the two armies operating in the Black Forest, where the French had also a superiority.

Resuming his retreat, he fell back to a position where he covered the road Aalen-Würzburg, by which a junction with Wartensleben might

Aalen to
Würzburg, 80.

be effected. But on the 26th, when he took position there, this junction was no longer practicable, since Wartensleben had retired from Wurzburg, followed by Jourdan, on the 22nd. The Archduke had therefore no longer any reason for retaining his strong position in the defiles—in fact, he had good reason to hasten his retreat. For there was still hope of effecting the desired junction by Ingolstadt or by Ratisbon; but if he were to linger too long, Wartensleben might be driven quite out of the theatre, when nothing would be left for the Archduke but to fall back to Enns or Budweis. Therefore he recommenced his retreat through the defiles on the north bank of the Danube, till his left rested on the river between Gunzburg and Dillingen, and his line stretched thence by Heidenheim, Neresheim, towards Nordlingen; and he destroyed all the bridges on the Danube between Ulm and Donauwerth, except that above Gunzburg, left to facilitate his junction with the left wing, then near him on the south bank.

The two armies faced each other for some days, the Archduke covering the evacuation of the magazines on the Danube; while Moreau reconnoitred the country (at that time very imperfectly known) before venturing to advance.

11th August.—The Archduke, seeing an opportunity in the disposition of Moreau's army, part of which was still in the defiles, attacked him at Neresheim. The action was indecisive.

13th August.—The Archduke crossed the Danube and joined his left wing.

14th and 15th August.—He moved down the Danube.

16th August.—He recrossed the river at several points near Ingolstadt.

Bamberg to
Nuremberg,
36.

Nuremberg to
Amberg, 38.

Eichstadt to
Neumarkt, 36.

Meanwhile, Wartensleben had quitted Bamberg on the 2nd August, sending his baggage to Egra; and being constantly outflanked on the right, had taken the direction of Nuremberg. The French followed, and on the 9th, Wartensleben retired towards Amberg, where he arrived on the 12th. He had orders from the Archduke, with whom he was now in communication by the line Eichstadt-Neumarkt, to remain there as long as possible; and Jourdan, finding himself in a difficult country of woods and ravines, and seeing his policy of outflanking the Austrian right scarcely feasible, since there was but one road fit to operate by, halted to rest his army between Nuremberg and Amberg till the 16th.

17th August.—Jourdan from Amberg towards the Naab.

Bernadotte with a division at Neumarkt to cover the right flank.

Wartensleben retreating to the Naab.

Archduke taking with him 20,000 infantry and 8000 cavalry, was marching from Neuburg towards Neumarkt. Archduke
reinforces
Wartensle-
ben.

He left General Latour, with 30,000 men, on the Lech to contain Moreau who had 60,000.

Moreau, in doubt as to the Archduke's movements, was still on the north bank of the Danube.

18th to 22nd August.—Jourdan, with 45,000 (9000 of whom at Neumarkt); and Wartensleben with 34,000, faced each other on the Naab.

22nd August.—Archduke attacked Bernadotte at Neumarkt, and drove him towards Nuremberg.

19th August.—Moreau passed the Danube at Dillingen, advancing towards the Lech.

23rd August.—The Archduke, sending a detachment to pursue Bernadotte, and another towards Nuremberg, turned towards the Naab. He ordered Wartensleben to be ready to push Jourdan on the least appearance of a retrograde movement; and in any case to attack him on the 24th, when the imperial army would certainly debouch on the right flank of the French.

That night Jourdan, apprised of the retreat of Bernadotte and the advance of the Archduke, quitted the Naab to take position in rear of Amberg.

24th August.—Jourdan took position at Amberg.

Wartensleben advanced upon him.

The two Austrian armies joined, numbering in all 62,000, against Jourdan 45,000 French; and Jourdan after a partial action, commenced his retreat retreats. by Nuremberg, Bamberg, Schweinfurt, whence there was a road to the Lahn north of the Mayne.

Moreau forced the passage of the Lech between Rain and Augsburg, Moreau
advances. with considerable loss to Latour.

25th to 28th August.—Jourdan retreated to the Rednitz, followed by the Archduke.

Latour to the Isar followed by Moreau.

Austrian right and French left before Ingolstadt.

29th August.—The Archduke detached 10,000 men under Nauendorf to reinforce Latour.

Zeil to
Schweinfurt,
18.

30th to 31st August.—The Archduke forced the Rednitz, and Jourdan fell back by Zeil to Schweinfurt. The Archduke followed to Bamberg.

1st Sept.—Latour, reinforced by Nauendorf, attacked Moreau's left at Geisenfeld in an indecisive action.

Jourdan at Schweinfurt.
Archduke advancing on Wurzburg.

2nd to 3rd Sept.—Jourdan, trying to gain the Wurzburg road as shorter and better to retreat upon, brought on an action, in which he was defeated and forced to retreat by the north bank. Each army made for the Lahn, the French by Arnstein-Giessen, the Austrians by Aschaffenburg-Frankfort.

3rd to 8th.—The Austrians entered Frankfort.

Marceau, raising the blockade of Cassel, opposed them with the investing corps.

Moreau advanced his centre to Freising and Moosburg—wings before Ingolstadt and Munich.

Jourdan re-
crosses the
Rhine.

Moreau in
doubt,

9th Sept.—Jourdan arrived on the Lahn, and was pushed thence over the Rhine, which he recrossed on the 21st.

Moreau, ignorant of the fate of Jourdan's army, from which he had no intelligence except rumours, resolved to concentrate his army in a position on the Danube, where he could at once check Latour and be ready to move to the assistance of his colleague.

sends his left
across the
Danube.

11th to 12th Sept.—Moreau moved to his left on Neuburg, sending Desaix towards Nuremberg as a diversion on the chance of favouring Jourdan.

Latour's
right crosses.

Latour followed. Nauendorf crossed to left bank.

Archduke
assails
Moreau's
communi-
cations.

13th to 18th.—Moreau halted on the Lech.

On the 18th, Kehl, Moreau's point of passage on the Rhine, was attacked by the Austrian garrison of Mannheim, set free by the Archduke's success. The French force covering the communications with the Rhine, at first defeated, rallied and repulsed the attack.

Moreau
retreats.

19th to 24th.—Moreau retreated to the Iller, where he took post from Ulm to Memmingen. Latour fronted him on the line Gunzburg-Augsburg.

Nauendorf was near Ulm on the north bank to prevent Moreau from moving towards the Archduke. Frölich with Latour's left wing was at Memmingen, and thence to Kempton, to keep Moreau from moving over the Alps towards Italy.

29th Sept. to 1st Oct.—Moreau in position behind the Lake of Buchau covering the roads into the Forest. Latour's centre at Biberach. Nauendorf from Ulm by Reutlingen to join the troops which had attacked Kehl, and which were now occupying the defiles of the Forest in rear of Moreau. Austrians manœuvre widely on his flanks.

The Archduke, bringing 16,000 men from the Lahn, had crossed the Neckar, 29th September.

Thus threatened in rear, Moreau resolved, before entering the defiles, to disembarass his retreat of Latour, who, by the wide dispersion of his forces, invited attack.

2nd Oct.—Moreau defeated Latour with heavy loss at Biberach.

He defeats

4th Oct.—Moreau resumed his retreat, entering the defiles in three columns at Siegmaringen, at Stokach, and between Stokach and Lake Constance, followed by Latour.

them, and retreats through the Forest,

8th Oct.—The Austrian detachments seeking to close the Villingen road were defeated by Moreau's leading division. The detachments retreated into the valley of the Kinzig.

11th.—The Austrian posts guarding the Höllenthal were driven on Friburg.

and emerges in the Rhine valley.

12th to 15th Oct.—The French passed the Höllenthal.

The Austrian detachments from the Forest, and the Archduke's force, united in the Rhine valley on the lower Elz.

Archduke concentrates there.

16th and 17th.—Nauendorf and Latour joined the Archduke. Moreau manœuvred ineffectually to reach Kehl by the Kinzig.

19th.—The Archduke attacked the French at Emmendingen and forced them to retreat.

21st.—Moreau threw a bridge at Brisach, and a division crossed the Rhine with orders to march to Kehl, recross there, and make a diversion on the enemy's rear, which might still enable the French army to remain on the right bank of the Rhine, and took with the remainder a strong position at Schliengen next day.

Brisach to Kehl, 50.

The Archduke advanced and was joined by Frölich issuing from the Höllenthal.

24th.—The Archduke attacked Moreau's position.

Moreau
recrosses the
Rhine.

25th.—Moreau recrossed the Rhine at Huningen.

The Austrians besieged and took during the winter the fortifications of Huningen and Kehl.

COMMENTS.

What consti-
tutes a double
line of opera-
tion.

As the columns of a single army, destined for combined action, are often separated by considerable intervals while approaching their object, it is evident that the fact of separation alone cannot constitute a double line. It is when the separation is so complete—whether owing to distance, to obstacles, or to want of communication—that no concert exists between the armies, and the action of each is independent, that the case of the double line is presented. The Austrians were nearly as far apart as the French armies; but when once united under the Archduke, all their movements were directed with a purpose of constant co-operation and ultimate junction. Jourdan and Moreau had equal facilities for communicating and combining their forces against the enemy; the fact that they did not use them, while the Austrians did, thereby gaining a campaign with inferior numbers, fully displays the advantages of concerted action, and of interposing between the parts of an enemy's front.

When the Archduke moved on the 26th June with part of his army to reinforce the army opposed to Moreau, he took with him a force which left Wartensleben inferior to Jourdan, without giving himself a superiority over Moreau. Criticising this operation, he says himself that he ought to have left with Wartensleben only a force sufficient to observe Jourdan, and to have transferred to the other side of the theatre such numbers as would have enabled him to drive Moreau over the Rhine

Limitation of
the containing
force.

again. In fact, a consideration of the remarks at the beginning of this Part will show that if an army is not intended to fight, but only to retard the enemy, any increase of numbers beyond what is necessary will only serve to embarrass its own retreat rather than the advance of the enemy. For the essence of the retarding operation is, that the force performing it shall withdraw promptly before it is outnumbered. But with the extent of front occupied the difficulty of withdrawing without a battle increases, and with it the risk of loss. Consequently, if a retarding force

be only just so inferior to the enemy as to be unable to accept battle, a great part of it will be always in column on the roads, and will therefore be only an encumbrance. The Archduke might have taken 15,000 additional troops from the Lahn to the Neckar, and still have enabled Wartensleben to fulfil his part, especially by leaving him strong in cavalry in that open country.

For the purpose of combination, good and direct roads between the Austrian armies were indispensable. Consequently the transverse lines, Frankfort-Heilbronn, Aalen-Wurzburg, Eichstedt-Neumarkt, Ratisbon-Amberg, became of vast importance. In order to combine, it was necessary that both Austrian armies should cover one of these transverse lines, or be in a condition to open it. Hence the difficulty of securing the opportunity of junction.

Transverse
lines neces-
sary for com-
bination.

It may be said that when the Archduke left Latour on the Danube, the situation merely became reciprocal; for though he was about to outnumber Jourdan, yet Moreau equally outnumbered Latour, and therefore a blow struck on one side might be balanced on the other. But there were two circumstances in favour of the Austrian commander. The first was, that Moreau remained for many days ignorant of the Archduke's design, and conceived himself still to be opposed by the same numbers as before, thus giving the Austrian general *time* to strike his first blows. And secondly, the direction of the Archduke's march menaced Jourdan's communications, and compelled him to retreat *apart* from Moreau; whereas, if Latour were compelled to retreat, he would fall back *towards* the Archduke, giving and receiving support.

Circumstances
in favour of
the Austrian
combination.

As the Archduke, on arriving at Neumarkt, was already on Jourdan's flank, it would at first sight appear that he would have done better to retain that advantage by calling Wartensleben towards him, when together they might have anticipated Jourdan at Nuremberg, and cut off his retreat. But Jomini suggests two very probable reasons why Wartensleben was not ordered to manœuvre by his flank towards the Prince. One was, that apparently no practicable road existed from Wartensleben's left to the Archduke's right. The other was, that Wartensleben, in so manœuvring, would uncover the direct road to Ratisbon, and that Jourdan, despairing of effecting a retreat, might join Moreau on the Danube. In fact, he would thereby be resorting to the alternative that

has already been indicated as being frequently the best which a commander cut from his base can adopt—namely, to traverse the communications of the enemy.

As it was, Jourdan, at Amberg, formed front to a flank, and, when defeated, still found the enemy aiming at his base on the Rhine by a shorter road than he possessed himself. It was owing to this that Jourdan's retreat was so precipitate; fearing to be anticipated on the Lahn, he passed in twenty-nine days over the same distance between the Naab and the Rhine which it had cost him fifty-six days to traverse when following Wartensleben.

Jourdan once beyond the Rhine, the Archduke, by a march parallel to his own base, struck at the communications of Moreau. And even had Jourdan, on learning his departure, been in condition to recross the Rhine, still the containing force left there, backed on the Archduke, would have kept him beyond the Mayne till the blow against Moreau had taken effect.

General deductions.

When, therefore, the parts of a combined force are interposed between independent armies advancing from a common base, the advantages of the former consist, 1st, in the power of mutual reinforcement and support; 2ndly, in the ignorance of the enemy as to the side on which the blow will fall; 3rdly, in the *direction* of the attack which both keeps them asunder and threatens their lines of retreat. And as the best remedy for the disadvantages of the situation is for the forces thus menaced to retire in order to combine; so the present case will be worse than that of an originally combined force, the front of which has been pierced, inasmuch as the absence of preconcert for such a contingency will render the junction still more uncertain.

Disadvantage of separation enhanced in the present case.

For these reasons, then, it seems that for two armies to operate against a combined enemy by lines where, from distance or want of concert, they are independent of each other, *is to confer on the enemy an advantage greater than that which has been demonstrated to follow from interposing between the parts of an extended front*, and that advantage will therefore be such as to compensate for considerable inferiority of numbers.

The advantage of concentrating an army whose communications are threatened is displayed in Moreau's retreat; when the Austrians, seeking

to close all the issues, laid themselves open to frequent disasters without preventing him from regaining the Rhine.

The objects to be kept in view by the commander of a retarding or containing force are well explained by the Archduke in his criticisms on Latour's operations. "If," he says, "Latour was too feeble to stop his adversary and hinder him by force from advancing, he should have sought to attain the same end by the direction of his movements and the choice of his positions. . . . If, instead of spreading his troops along the Lech, he had concentrated the greater part near Rain, and had rested always on the Danube without allowing himself to be separated from the Archduke, he would have fulfilled perfectly the object with which he was detached. If Moreau had advanced upon him, he had only to avoid the engagement, retiring upon Ingolstadt, where the bridge gave him the power of passing the Danube, establishing himself on the other bank and sending a detachment only on the Isar to stop the enemy's parties. Finally, there would remain to him the impracticable defile of the Altmuhl.

Archduke
Charles on
the duties of
a containing
force.

"In calculating the time which was necessary for Moreau to pass the Danube and arrive on the Altmuhl, it is evident that the conflict between the Archduke and Jourdan would be decided first. If victory remained with the Archduke, he might detach sufficient troops towards the Altmuhl to reinforce Latour—or better still, draw Latour half-way towards him, to undertake, conjointly, an operation against the flank and rear of Moreau. The consequences of a check while so operating would not be disastrous. Latour covering the retreat, the army, composed of all the troops of both corps, might in the last resort retire honourably into Bohemia: might even perhaps steal some marches on Jourdan, and, falling in force on Moreau, beat him, throw him back on Ingolstadt, pass the Danube there, and thus gain the Isar and the Inn before the enemy."

While gathering these lessons from the campaign, it is not to be inferred that it was perfect of its kind. The Archduke in narrating it has frankly owned his errors. The Austrian armies were driven to their very last line of possible junction, and had traversed great part of the theatre, before they combined. The retreat of Wartensleben from point to point might have been better timed, and its direction would have been more judicious by being more concentric, for by keeping so distant a line

he jeopardised the maintenance of communications with the commander-in-chief. And the measure of the force transferred to either wing for the decisive blows was not judiciously estimated.

Had the French armies operated each against the *inner* flank of the opposing force, driving the Austrians asunder, without, however, combining or concerting operations against them—Moreau, for instance, aiming to drive the Archduke back upon the Tyrol, Jourdan manœuvring to hem Wartensleben against the Mayne—the case would have borne the aspect of two distinct campaigns, where each general, on both sides, must have relied on himself for opposing his adversary. But had the French armies, besides interposing, also combined their operations, they would have commanded all the advantages which their actual measures left to their opponents.

At the moment of separating from Latour, the Archduke said, "Let Moreau go even to Vienna: that will matter little, provided I beat Jourdan." At first it would seem as if such an advance by Moreau would balance any success against Jourdan. But the fact is, that no success of Moreau *south of the Danube* would deprive the Archduke of his *base in Bohemia*, or prevent him from forcing Moreau to retreat by falling on his rear. His prevision, therefore, was fully justified.

Existing railways would connect German armies on the Mayne and Danube, and facilitate their concentration, by the lines,

Wurzburg-Donauwerth.
Wurzburg-Donauwerth-Augsburg-Ulm.
Bamberg-Donauwerth.
Bamberg-Ratisbon.

A railway also runs through the Austrian base from Prague by Budweis to Linz with the lines of supply,

Prague-Pilsen-Amberg-Wurzburg.
Linz-Ratisbon.

CHAPTER IV.

SUBJECT CONTINUED.

A VARIETY of the same problem is offered by the case of an army which, in covering some point, such as the capital of an empire, is assailed by armies whose general aim is to reach that point, and who, so far, act in concert, but who follow distinct paths towards it.

The great example of this is the campaign of 1814 in France, when Napoleon with a single army covered Paris against the Allies, who were converging on the capital by three lines—namely, from the Upper Rhine, from the Lower Rhine, and from Holland. But as that campaign affords also the best illustration of a problem of *obstacles*, it is reserved for a subsequent chapter.

CAMPAIGN IN VIRGINIA, 1861.

(Map No. 8.)

The campaigns in Virginia being directed against Richmond, and generally by more than one line, afford several instances of the case under discussion.

In June 1861 the Confederate capital was menaced by two armies. Various lines of operation. One under General Patterson, about 20,000 strong, was on the Upper Potomac, about Williamsport; the other under M'Dowell was preparing to advance from Alexandria towards Centreville. Opposed to Patterson was the Confederate General Johnston, with 11,000, at Harper's Ferry; and General Beauregard was organising a force on the Bull Run stream to oppose the advance of M'Dowell. West of the Alleghanies, M'Clellan,

with a great superiority of force, was operating against the Confederates under Garnett.

Confederate
transverse
line.

Beauregard's position covered the junction of two railroads at Manassas. One running south-west to Gordonsville, branched there to Richmond and Lynchburg; the other ran westward into the Shenandoah Valley. And the only safe communication between the two Confederate armies thus separated by the Blue Ridge of the Alleghanies, was up the valley, to Strasburg or Front Royal, and thence by the Manassas Railroad. Therefore, when Patterson, crossing the Potomac, advanced on Martinsburg, he threatened not only to cut Johnston from Beauregard, but also to seize the road leading on Beauregard's flank. Should both Federal armies advance simultaneously, Johnston's force would be isolated, and Beauregard's exposed to their combined attack. Nor was this all for on reaching Winchester, Patterson might be joined by M'Clellan. Winchester and Manassas Junction were therefore points absolutely necessary to the Confederates for mutual defence and support, the occupation of either being dependent on the possession of the other.

Consequences
of losing it.

Winchester
to Manassas
Junction, 60.

Johnston, in
falling back,
covers this
line.

Accordingly, when Patterson advanced, Johnston, on the 16th June, fell back from Harper's Ferry towards Winchester. He thus maintained his communications with Beauregard, and prevented the combination of Patterson and M'Clellan.

Harper's
Ferry to Win-
chester, 28.

16th July.—After various indecisive manœuvres and movements to and fro in the valley, Patterson again advancing towards Winchester, paused, and began to extend his left eastward as if to combine with M'Dowell.

M'Dowell
advances.

That day M'Dowell, 60,000 strong, advanced from Alexandria to Fairfax Court-House.

Alexandria to
Fairfax C.-H.,
16.

17th.—Beauregard's troops, about 20,000, were assembled at the various passages over Bull Run which might be approached by roads from Fairfax Court-House.

18th.—M'Dowell made a partial attack on the line of Bull Run, which was repulsed.

Johnston
moves to
combine with
Beauregard.

Johnston, quitting his camp, marched through Winchester to Millwood, on his way to reinforce Beauregard; masking the movement by an advance of cavalry towards Patterson's position, as if menacing an attack. Passing the Blue Ridge at Ashby's Gap, he halted at its eastern base.

19th July.—Jackson's brigade, of Johnston's force, moved by rail to Manassas. The cavalry and guns marched by the road.

20th July.—M'Dowell spent this day, as he had spent the 19th, in reconnoitring Beauregard's position. The rest of Johnston's troops were still detained near the Blue Ridge by an obstruction on the railway which prevented transport.

21st July.—M'Dowell, leaving his left in Centreville, to cover the road to Alexandria from a counter-attack, threw his centre and right forward to the river at various points. Outflanking the enemy by the extent of front occupied by his superior numbers, his right passed the stream and turned the Confederate left. Beauregard met the onset with his immediate reserves, which, though successful in repulsing some of the continual attacks on that side, were on the whole pressed back. But the railroad being now clear, Johnston's troops began to arrive on the field. The direction of their advance brought them on the flank and rear of the Federal right wing, already stoutly opposed. The result was the well-known panic flight of the Federal army.

Patterson, on finding Johnston gone from his front, retired on Harper's Ferry. Confederates combine against M'Dowell.
Patterson recrosses the Potomac.

CAMPAIGN IN VIRGINIA, 1862.

(Map No. 8.)

In 1862, Richmond was again threatened on several lines.

Federal lines.

M'Clellan, with the main army, 85,000, landing on the Yorktown peninsula, and establishing his depots at White House, on the Pamunkey, was advancing on the capital by the roads leading across the Chickahominy. White House to Richmond, 20.

On his right, M'Dowell, with 35,000, was advancing *via* Fredericksburg towards the Upper Pamunkey to combine with him. Fredericksburg to Richmond, 55.

Sigel was at Manassas Junction, connected by a brigade at Front Royal with Banks, in the lower part of the Shenandoah Valley. Fredericksburg to Manassas Junction, 35.

Fremont, with the army of Western Virginia, was threatening the upper part of the Shenandoah Valley from Franklin. Franklin to Manassas Junction, 120.

Norfolk, in Virginia, and several points in North Carolina, were also threatened by detachments landed on the coast.

On the Confederate side, 12,000 men under Magruder opposed M'Clellan's advance. Confederate positions.

Jackson, with 15,000, was in the Shenandoah Valley covering the issues through the mountains from Franklin on the one side, and also fronting Banks towards Winchester and Front Royal.

At Norfolk, and the threatened points in North Carolina, were considerable detachments.

Johnston, with the main Confederate army, was in and around Richmond. And a Confederate corps under Anderson faced M'Dowell on the Rappahannock.

Jackson defeats Fremont.

Early in May, and before M'Clellan was established on the Pamunkey, Jackson, concentrating superior forces between Woodstock and Harrisonburg, had defeated successively two of Fremont's brigades, forming the advanced-guards of his columns, as they issued from the mountains, and driven them back on Franklin. Fremont, thus repulsed, remained in Western Virginia.

M'Clellan advances on Richmond.

22nd May.—M'Clellan's army, pushing back Magruder, was assembled on the Chickahominy. At this time the Confederate detachments in North Carolina, and the garrison of Norfolk, had been called into Richmond, and Johnston's main army, reinforced by these troops and by Magruder's, opposed M'Clellan's further advance.

Jackson defeats Banks.

23rd May.—Jackson attacked and destroyed Banks's detachment at Front Royal.

24th May.—Jackson continued his march down the valley to attack Banks.

25th May.—Jackson attacked Banks at Winchester, and drove him down the valley and over the Potomac with severe loss.

The President retains M'Dowell's corps.

26th May.—The Federal President, learning Banks's disaster, and fearing for the safety of Washington, instead of allowing M'Dowell to continue his movement towards M'Clellan, recalled the troops which were already on the march, and despatched the corps to close the avenues to the capital, by Front Royal and Centreville, against Jackson.

Anderson falls back to Hanover.

The Confederate force under Anderson, which had been opposed to M'Dowell, under the joint menace of his advance and of M'Clellan's position, had withdrawn towards Richmond, and was this day at Hanover Court-House, where it might still oppose the junction of those generals, and also form a connecting-link between Johnston and Jackson through Gordonsville.

27th May.—M'Clellan, seeing his right thus threatened and his further movements embarrassed by Anderson's position, detached from his right a body of troops, under Porter, who drove a Confederate division from Hanover Court-House upon Richmond. M'Clellan
seizes Hano-
ver C.-H.

31st May.—Johnston from before Richmond attacked M'Clellan's left wing on the right bank of the Chickahominy, and, after a partial success, was repulsed. Lee succeeded to the command, Johnston being wounded.

M'Clellan now occupied himself with strengthening his own position on the Chickahominy, and bridging the stream at many points before finally advancing upon Richmond.

Meanwhile Jackson, threatened by greatly superior numbers, had retired up the Shenandoah Valley, and on 8th and 9th June defeated the forces pursuing him, near Harrisonburg. Having driven them northwards he secretly moved on Richmond, *via* Gordonsville, on 17th June, using his cavalry to conceal his withdrawal. Gordonsville
to Richmond,
74.

25th June.—M'Clellan began his final advance upon Richmond.

Jackson's advanced troops reached Hanover Court-House.

26th June.—Jackson, in concert with Johnston, part of whose army was transferred from before Richmond to the left bank of the Chickahominy, fell upon M'Clellan's right. Jackson com-
bines with
Johnston.

27th June.—M'Clellan's troops on the left bank of the Chickahominy were thus compelled to form front to a flank. He let go his hold of the York River, and by means of his flotilla established a new base on the James River, in rear of both his wings. M'Clellan
changes his
front and
base,

The series of attacks which forced him through seven days of continual battle back upon the James, now commenced, and lasted till the 3rd July, when he gained the shelter of his gunboats on the river. and retreats
to the James.

The troops of Sigel (who had also Fremont's corps), Banks, and M'Dowell were now united into an army under General Pope, whose instructions were to advance upon Gordonsville and take the pressure off M'Clellan. On the 18th July his advanced-guard reached Orange Court-House. Opposed there by Confederate troops from Richmond, he halted. The other
Federal army
advances
under Pope.

Meanwhile M'Clellan had been fortifying his position, and meditating another advance by the line of the James, on Richmond, which was still covered by the main Confederate army, but the Federal Government eventually decided to withdraw him, by sea, to join Pope.

5th Aug.—Jackson's corps, detached by Lee, approached Pope's front,

Jackson opposes Pope. and the Federal general withdrew beyond the Rapidan towards Fairfax. His divisions, some of which guarded the gaps of the hill-range in his rear, were spread over a space of 30 miles.

9th Aug.—Jackson, whose object was to induce Pope to keep a forward position till the main Confederate army should arrive, fell back over the Rapidan to await Lee.

Lee combines with Jackson.

17th Aug.—Lee, from Richmond, arrived on the Rapidan.

M'Clellan embarks for Washington.

M'Clellan's troops were now embarking for Alexandria.

Lee and Jackson, together, had 70,000 men.

Pope, who had 50,000, retired over the Rappahannock.

Pope retires.

Jackson turns Pope's right.

25th and 26th Aug.—Jackson with his corps, 18,000, moved up the Rappahannock, and thence along the eastern slope of the Blue Ridge, by Orleans and Salem, covered by the hills of Bull Run. Having completed his circuit round Pope's right, he descended by Thoroughfare Gap upon Bristow Station of the Orange Railway, in rear of the Federals.

27th Aug.—Pope, thus menaced, advanced by the Warrenton road and by the railway upon Jackson, to clear the line to Alexandria.

At his approach, Jackson retired along the railroad to Manassas Junction, destroying a Federal brigade there.

M'Clellan reinforces Pope.

Pope was reinforced by two of M'Clellan's divisions from Alexandria.

28th Aug.—Jackson continued his retreat across Bull Run, and held the line of the river. Pope continued to close upon him.

29th Aug.—Jackson in position, left near Centreville, right towards Thoroughfare Gap, was attacked on his right by Pope's left column which had marched from Warrenton.

Lee supports Jackson.

Lee's army, following Jackson's march, began to issue from the Gap.

Pope's right entered Centreville.

30th Aug.—Lee's army, having defiled through the Gap, formed line on Jackson's right, reaching beyond Pope's left.

Pope formed his right wing obliquely across the Alexandria road at Centreville.

Pope, defeated, retreats.

Lee attacked and defeated Pope, who, with heavy loss, retreated entirely on Centreville.

Two other divisions of M'Clellan's army, 20,000, arrived to reinforce Pope.

31st Aug.—Both armies remained in position.

1st Sept.—Jackson, moving by his left along the hills, threatened the Centreville-Alexandria road.

Pope resumed his retreat.

2nd Sept.—The remains of Pope's army, greatly disorganised by retreating under constant pressure, regained the lines of Alexandria.

Pope retreats on Washington.

COMMENTS.

Those operations differ from those of 1796 only in the fact that there was so much concert between the assailants as resulted from their having a common and definite object.

But in all these cases the advantage of operating *from* a common centre against widely separated bodies advancing *towards* that centre is apparent. Against one line of invasion a retarding and inferior force is used, while on the other a preponderating force is brought into action; and the first victory is the signal for the general derangement and failure of the enterprise.

To operate methodically to the best advantage, the covering army, if assailed on two lines, should place on each of these a retarding force at first, considering these as wings, while the mass in reserve is held ready to give a preponderance to either wing, or to both in succession. In all Napoleon's operations against a divided enemy this principle is apparent—at Jena for example, at Millesimo, at Eckmuhl, at Rivoli, and in the cases yet to be quoted of Waterloo, and of the campaign against the Allies on the Seine and Marne.

Concentric army generally forms two wings and a central reserve.

If then, in such a case, the covering army were to be disposed on the two lines in exact proportion to the hostile numbers advancing on them, it would be operating on a false principle. For if in total numbers inferior to the enemy, it would be inferior on each line, and would therefore presumably, be defeated on each: whereas, as already shown, the situation ought to be made to compensate for inferiority.

Proportion of force on each line.

As the first movements will generally be in retreat towards the common centre, and as there can only be a limited number of transverse lines which will afford the opportunity of co-operation and combination between centre and wings, it becomes important to inquire to what dis-

tance from the point covered the parts of a covering army can operate without risk to the general principle.

If the parts of the covering army should fall back so far before striking a decisive blow, that the enemy's forces, converging, communicate and form one force, all the advantage of the situation is lost, and the defenders are thrown on their tactical resources. Thus, in 1864, Lee on the Rappahannock and Brackenridge in the Shenandoah Valley, opposed Grant on the one side, Sigel on the other; while Beauregard on the side of Petersburg confronted Butler. Brackenridge defeated Sigel, and then reinforced Lee against Grant at Cold Harbour; and Beauregard successfully opposed Butler. But Grant, by a flank march to the James, came into communication with Butler: henceforward they formed one force; and Lee, notwithstanding his fortifications, could never subsequently shake them off. We can, then, form an idea of the minimum distance at which the concentric army can advantageously operate in front of the point it covers—namely, such as will keep the enemy's forces, as they gradually approximate on the converging lines, from uniting.¹

Minimum of
radii of opera-
tion.

The maximum distance is less determinate. Yet it is desirable that it should be fixed in some degree, since a natural wish to protect as much territory as possible from the presence of the enemy might lead an army to operate on a frontier very distant from the capital, or other point specially covered. Space alone, when very long radii are used, may effectually destroy concert between parts of an army, even if those parts be nearer to each other than are the parts of the enemy. Even since the introduction of the field-telegraph, co-operation must be more difficult when the distance which mutual reinforcements must pass over is great, and the chances have thereby proportionately increased that, during their transit, unforeseen changes may have taken place in the situation of the opposing forces.

Radii must be
short in pro-
portion to
their diver-
gence.

¹ The minimum distance is affected by the question of the duration of battles, discussed in a subsequent chapter. From the experiences of the recent war in Manchuria it has been argued that modern battles will last for several days. If this be so it must affect operations on "interior lines." Thus, on 16th June 1815, Napoleon only required Ney to delay Wellington at Quatre Bras for a few hours, knowing that his battle with Blucher, at Ligny, would be decided in that time. Had the battle with Blucher been likely to last for two or three days Ney's small force could not have been expected to prevent Wellington, only 7 miles off, from sending assistance to Blucher in time to enable him to turn the scale against Napoleon.

But there is also another reason why the lines of operation should be limited in extent. It has been pointed out that the retarding force should be strictly limited, since a superfluous number would be an encumbrance on the one line, while its aid would be vitally important on the other. But a force thus retarding a superior enemy performs its duty with a certain loss. For the troops which the enemy first brings into action, being assured of immediate support from the army in rear, can manœuvre to a flank with unusual boldness, and may moreover feel confident that no sustained offensive operation will be attempted against them. On the other hand, if the troops on the flanks of the deployed retarding force are slow in withdrawing towards the line of retreat, they are apt to be cut off—or, if they withdraw too soon, they may lay bare the rear of the centre; and it cannot be expected that on all occasions their movements should be exactly timed. Thus Zieten, in effecting his object of retarding the French columns on the Sambre, lost, in his retreat upon Fleurus, 1200 men. Were there not a reserve to make good these losses, the force would in a few days be so reduced as to be unable to make a stand, and could only be driven in perpetual retreat. According to the length of time that the force will probably be called on to act separately, must its numbers be increased; and on a very extended line, therefore, either the principle of the campaign would be lost sight of by the undue increase of numbers, or else the retarding force would be practically destroyed.

Losses of the
retarding
force also
limits its
radius.

It must not, of course, be forgotten that an invading army uses as many roads for its advance as are conveniently near and sufficiently direct. In proportion to the number of these which are available will be the difficulties of the retarding force. For if it were to neglect any of them, the enemy's column on that road would turn its flank and arrive in its rear. Supposing, then, that 50,000 invaders are advancing along two roads; the example of Zieten shows us that, in an ordinary country, 7000 or 8000 defenders should be disposable on each of those roads, with a general reserve, say of 4000, for casualties. Thus 20,000 men will perform the duty of opposing the 50,000 on that line. Supposing, further, that the invaders are in two armies, 50,000 each; that, on the other side, 20,000 are at first thrown out to oppose them on each line, and the mass of the defensive army assembled at some central point; then 40,000

reinforcing one wing will give sufficient superiority to ensure victory in a battle on that side, and, after detaching a pursuing force, will also bring a superiority on the other, and probably strike also in a fatal direction. Thus 80,000 operating concentrically should be successful against 100,000 divided, in an ordinary country; but of course, if circumstances admit (as at Monte Legino and Bull Run) of the whole retarding force being withdrawn, and its weight cast on the other side, this increases the odds in favour of the combined army.

Advantage of the situation is at least 5 to 4.

Choice of a line for the retarding force.

It is clear also, that *when one line lies through an open country, and the other is difficult, offering few roads to the advance, and many natural obstacles, the retarding force should act on the latter.*¹

Also, when an invaded frontier is very distant from the object, and the defensive army decidedly inferior to the total forces advancing on a double line, it will be better, on military grounds, to make no serious stand near the frontier, but to direct the first efforts to keep the enemy on separate lines, and to fall back to a point where, his forces being diminished by the necessary conditions of invasion, the parts of the combined army shall be near enough to each other to strike concerted blows.

See Pt. II. ch. i.

The additional advantages of railway communication between the parts of the defensive army, and from these to the point they cover, need no comment.

Swiftness essential.

Lastly, it is evident that *the situation is of decisive advantage only when turned to account by a leader who acts with promptitude and resolution. Slowness and indecision will be fatal to the inferior army, the commander of which must be swift to perceive and to use his opportunity.*

¹ That there may be exceptions to this general rule is, however, shown by the 1866 campaign in Bohemia, when two Prussian armies were converging on Benedek. Authorities are agreed that as the army advancing from Silesia was more immediately dangerous than the other, advancing from Saxony, there was not time for Benedek to deal with the latter first although the former had far the more difficult country to traverse.

CHAPTER V.

CASE OF COMBINED ARMIES OPERATING FROM DIVERGENT BASES.—
CAMPAIGN OF WATERLOO.

(Maps No. 9 and No. 10.)

THE Duke of Wellington while at the Congress of Vienna, foreseeing that Belgium would probably become the scene of hostilities, had indicated some measures necessary to be taken for the defence of the capital. There were many reasons why this territory should be the theatre of war selected by Napoleon. On other sides—on the Rhine frontier and along the barrier of the Alps—France was already strong against invasion, and comparatively few troops might, for the present, render her secure there. But the frontier adjoining Belgium was open, except for fortresses, which had not prevented the advance of a hostile army in the preceding year; and around Brussels lay the forces of Wellington and Blucher, which by their proximity were the most menacing to Paris. The advance of the Allies on that capital in 1814, and the occupation of the east and south of France by hostile armies, had so much contributed to produce the state of public feeling which compelled the Emperor to abdicate, that he could not, when he entered France in 1815, venture to await, as in the preceding year, in a defensive attitude, the chances of invasion. He was compelled to become the assailant; it only remained to select the point of attack. The Allied armies in Belgium were now unsupported, but a few weeks would enable Russia and Austria to bring overwhelming forces into action. Could he, by a prompt attack, defeat the English and Prussians and gain Brussels, another stride would carry him to the Rhine, and with that great obstacle between him and his enemies, and its passages in his hands, he might, in the most favourable attitude, political as well as

Reasons for
assuming the
offensive.

Selection of a
Theatre of
War.

military, prepare for the encounter; while France, rendered by these first successes forgetful of late disasters, would be arming with new enthusiasm for the struggle. It is true he had but 125,000 men, while the opposing generals, exclusive of garrisons, could bring more than 200,000 into the field. But his army of veterans was one of the finest he had ever led; the French were accustomed to beat the Prussians; and Wellington's forces, besides being chiefly young soldiers, were made up of mixed and discordant materials. There was sufficient reason, then, for his selection of Belgium as a territorial line; but, looking to the circumstances and position of the hostile armies, he saw other grounds for expecting success.

Allied bases
and communi-
cations.

The Prussian army drew its supplies from Cologne. Its nearest communication lay through Liege. The English were based partly on Antwerp, partly on Ostend; and from the anxiety which Wellington displayed for the safety of his communications with Ostend, it is evident that they were essential to him. When both armies met in front of Brussels, their communications stretched right and left almost parallel to their front. If Napoleon, from the frontier between Lille and Rocroy, were to operate by his right, and on the right bank of the Meuse, he would come directly on the Prussian communications through Liege. If by his left, between the Lys and Scheldt (as Wellington expected), he would sever the English communications with Ostend. Therefore the Allies were obliged so to dispose their forces as not only to interpose on the main lines to Brussels, but also to protect the roads which linked them to their bases.

Extension of
the Allied
front.

Charleroi to
Brussels, 35.

Three great roads lead across the frontier upon Brussels, from French fortresses, namely—

Lille-Tournay.	
Valenciennes-Mons.	
Beaumont-	} Charleroi.
Philippeville-	

Had the Allied armies been both of them based on Antwerp, they would, by forming front on *any* arc of which these roads were the radii, have covered both Brussels and their base. As it was, their front extended from Oudenarde to Liege, that is, on an immense arc; and still covered their communications with their bases very imperfectly.

The headquarters of Blucher were at Namur, and his corps were thus posted :—

Zieten's headquarter	.	.	.	.	Charleroi.	Prussian positions.
Pirch's "	.	.	.	.	Namur.	Namur to Charleroi, 24.
Thielemann's "	.	.	.	.	Ciney.	Namur to Liege, 35.
Bulow's "	.	.	.	.	Liege.	Namur to Ciney, 20.

Wellington's headquarters were at Brussels. His army, in two corps and a reserve, was thus distributed—

Corps.	Divisions.				Stations.	
1st.	2nd.	Dutch-Belgian	.	.	Quatre Bras, Nivelles.	Enghien to Quatre Bras, 24.
	3rd.	do. do.	.	.	Rœulx to Binche.	
	3rd.	British	.	.	Soignies to Rœulx, Braine, Enghien.	
	1st.	do.	.	.	Enghien.	
2nd.	2nd.	British	.	.	Ath.	Ath to Oudenarde, 21.
	4th.	do.	.	.	Oudenarde.	
	1st.	Dutch-Belgian	.	.	Road of Grammont to Ghent.	
	Indian Brigade		.	.	Thence to Alost.	
Reserve.	5th.	British	.	.	Brussels.	
	6th.	do.	.	.	Brussels.	
	Brunswick		.	.	Brussels.	
	Nassau		.	.	Brussels road to Louvain.	
Cavalry.	Main Body		.	.	Grammont, Ninhove.	
	Brunswick		.	.	Brussels.	
	1st. brig.	Dutch-Belgian	.	.	Rœulx.	
	2nd.	do. do.	.	.	Rœulx to Mons.	
	3rd.	do. do.	.	.	opposite Maubeuge and Beaumont.	

The headquarters of the different corps and divisions being at the places indicated, the troops were so stationed between the frontier and the headquarters as to form a chain of posts towards the enemy. Thus, brigades of Zieten's corps observed the course of the Sambre, and the detachments on their right overlapped those of the Dutch-Belgian division whose headquarters were at Nivelles. The Prussian cavalry vedettes were pushed beyond the Sambre; and their line was taken up and extended by Dutch-Belgian cavalry, till these touched the outposts beyond Mons. In this way a cordon of sentries and vedettes was formed throughout the extent of frontier; the outposts which furnished and supported them were in neighbouring farms or hamlets; the supports on which these relied

were at other central points in rear of them; and the posts and supports were thus on concentric lines, the headquarters forming the final centre and point of assemblage of each division.

Choice of
line of opera-
tion.

Napoleon, having assembled the Army of the North behind the screen of the cordon of posts extending along the line of the frontier fortresses, had three courses open to him: 1st, he might move from his right into the space between the Meuse and Moselle (which runs to the Rhine east of the Meuse and nearly parallel), aiming at the Prussian communications; but this would compel the Prussians and English to concentrate, when the French must give battle with their backs to the Moselle, that is, fronting to a flank. Moreover, the roads in the valleys of those rivers were so bad at that time that such a measure was scarcely feasible. 2nd, He might choose one of the three roads leading directly on Brussels; this was the course which he actually took, and therefore it need not be discussed in this place. 3rd, He might advance from Lille between the Lys and Scheldt, turning Wellington's right, and severing his communications with Ostend; but this would compel the Allies to unite by throwing Wellington back on Blucher, when in an engagement the French must form front parallel to their communications, and with their backs to the sea. And it was a great advantage to Napoleon that Wellington expected him, even after the campaign was begun, to take the third course.

Napoleon having, then, resolved on the second alternative, it remained for him to choose between the roads already named. Those of Tournay and Mons were closed by those fortresses which Wellington had caused to be put in a condition to resist a sudden attack. The French army advancing on either of them must either have delayed to besiege them, which would have given the Allies ample time to assemble on the threatened line, or have detached troops to mask them, thereby weakening the army for battle. On the Charleroi road no such obstacle existed; and, moreover, it led directly on the junction of the English left and Prussian right. If unable to oppose the advance, the Allied armies would, the Emperor calculated, incline each to its own base, thus separating and affording him an opportunity of defeating them in detail, when Brussels would be at his mercy.

But there was yet another circumstance in favour of this line of

operation. The lateral communication of the two armies was by the road Nivelles-Namur. In rear of that road, behind the point of junction, is the country watered by the Dyle: a tract marshy, intersected, and traversed by none but country roads. If the Allies should lose the communication Nivelles-Namur, the next good road by which they could join would be Wavre-Brussels, or Louvain-Brussels, where their fronts would be on the line uniting the two bases Ostend and Cologne. Was it not probable that, rather than seek so perilous a junction, the Allies would retire each towards his own base?

Such were the conditions under which Napoleon, with his fine army of 125,000 veteran Frenchmen, of whom 20,000 were splendid cavalry, prepared confidently to assail two armies—one nearly equal to his own (Blucher had 116,000 men), and the other also formidable in numbers; for Wellington, exclusive of garrisons, could place about 90,000 men in line of battle.

The general plan of the Allies—the only plan, indeed, which their Allied plans. defensive posture permitted them to form—was to retard as much as possible the French advance, and then to concentrate for battle on the menaced line. If Napoleon's attack were on the Allied right, Wellington must try to detain him on the Scheldt till the Prussians should come into line: if on the Allied left, Blucher must occupy him on the Meuse till the English could come up: if on the centre, the troops of both armies already on that line must combine to delay him till the Allied forces could unite to deliver battle.

On the night of the 14th June the French army was concentrated on the Charleroi-Brussels line as follows:—

Right wing	.	.	16,000	.	.	Philippeville.	Beaumont to
Centre	.	.	64,000	.	.	Before Beaumont.	Charleroi, 18.
Left wing	.	.	45,000	.	.	Leers and Solre-sur-Sambre.	

During the day the Dutch outposts between Mons and Binche, and those on the Prussian right, had observed and reported that French troops had moved through Beaumont towards Philippeville. The commander of a brigade on the Sambre, reconnoitring on the right bank, apprised Zieten at Charleroi of the concentration of the enemy about Beaumont. Later in the day Zieten ascertained through his outposts,

which extended to the borders of the forest surrounding Beaumont, that strong French columns of all arms were assembled in his front, and that everything portended an attack for the following day.

Meanwhile National Guards had replaced the regular troops in the French fortresses, and had for a few days previous to the assembly of the army made such marches and shows of movements along the line of fortresses from Dunkirk (on the coast) to Maubeuge as might seem to indicate an attack on Wellington's right. These movements were seen by the Duke's outposts, especially by those in front of Tournay, and doubtless tended to confirm his opinion as to the direction in which the expected attack would be made.

Advance of
the French.

15th June.—Before daylight the three columns of the French advanced; the right, which reached the river later than the others, on Chatelet, five miles below Charleroi on the Sambre; the left, on Marchienne, a mile above the town; the centre, on Charleroi. The Prussians defending these bridges were driven from them, and the heads of the French columns passed the river. Thus the front of the army, which from Philippeville to the Sambre had extended about eighteen miles, was contracted to six miles—not more than enough for the line of battle.

Zieten's corps
a retarding
force.

It was Zieten's business to delay with the troops of his corps the advance of these columns till the Prussians could concentrate. Accordingly he disputed the ground at all favourable points, till at nightfall his brigades, falling concentrically back, united behind Fleurus.

Prussians
concentrate.

During this time, two other Prussian corps had been marching to concentrate on the previously-chosen field of Ligny. Thielemann, from Ciney, reached Namur; Pirch, from Namur, reached Mazy, six miles from Ligny; Bulow had received orders to concentrate his corps, and then march, but as he had not been made acquainted with the urgency of the case, he had delayed to march.

Charleroi to
Frasne, 10.

Opposite was the head of the French central column, about half of which was still beyond the Sambre on the Charleroi-Beaumont road. Half of the right wing had crossed, and was between Chatelet and Gilly. The whole of the left had crossed; the head of the column was at Frasne, the rear on the Sambre at Marchienne.

Wellington, on first hearing of the French advance in the afternoon, issued these orders:—

“General Dornberg’s brigade of cavalry and the Cumberland Hussars to march on Vilvorde, and bivouac on the highroad near that town.

“The Earl of Uxbridge will please to collect the cavalry this night at Ninhove, leaving the 2nd Hussars looking out between the Scheldt and Lys.

“The first division to remain at Enghien, ready to move at shortest notice.

“The second division to collect this night at Ath and adjacent, ready, &c.

“Third division at Braine-le-Comte, ready, &c.

“Fourth division at Grammont, except the troops beyond the Scheldt, which are to move to Oudenarde.

“Fifth division, 81st Regiment and Hanoverian brigade of the sixth division, to be ready to march from Brussels at a moment’s notice.

“Duke of Brunswick’s corps to collect this night on the road between Brussels and Vilvorde.

“The Nassau troops to collect at daylight to-morrow morning on the Louvain road, ready to move at shortest notice.

“The Hanoverian brigade of the fifth division to collect at Hal, ready to move at daylight towards Brussels, and to halt between Alost and Assche for further orders.

“The Prince of Orange is requested to collect at Nivelles the second and third divisions of the Army of the Low Countries, and should that point have been attacked this day, to move the third division British upon Nivelles as soon as collected.

“This movement is not to take place till it is quite certain that the enemy’s attack is on the right of the Prussians and left of the British.

“Lord Hill will be so good as to order Prince Frederick of Orange to occupy Oudenarde with 500 men, and to collect the first division of the army of the Low Countries, and the Indian Brigade at Sotteghem, ready to march at daylight.”

On receiving other information ~~the~~ further orders were issued at ten o’clock at night:—

“The third division to continue its movement from Braine-le-Comte on British concentrate. Nivelles.

“The first division to move from Enghien on Braine-le-Comte.

The second and fourth divisions from Ath and Grammont and also from Oudenarde, and to continue their movement on Enghien.

“The cavalry to continue its movement from Ninhove on Enghien.

“The above to take place at once.”

16th June.—While the heads of the French columns of the centre and right wing passed Fleurus towards Ligny, the rear portions closed on them and came into line. The left wing also, consisting of the corps of Reille and D'Erlon, began to advance and to close up to its front.

Nivelles to
Quatre Bras,
7.

The General commanding the Dutch-Belgian division, the brigades of which were at Nivelles and Quatre Bras, took upon himself, on learning Ney's advance on the evening of the 15th, to concentrate his division at Quatre Bras instead of at Nivelles.

Zieten's corps at Ligny was reinforced at six in the morning by Pirch's from Mazy, and at noon by Thielemann's from Namur.

Napoleon's
estimate of
the situation.

Meanwhile Napoleon's views of the state of affairs were thus explained in a despatch to Ney, dated Charleroi, eight in the morning of the 16th:—

“I shall be at Fleurus in person before noon. I shall attack the enemy there if I encounter them, and clear the road as far as Gembloux. There, after what may take place, I shall adopt my course, perhaps at three in the afternoon, perhaps this evening. My intention is that, immediately after I shall have chosen my course, you will be ready to march on Brussels: I will support you with the Guard which will be at Fleurus or Sombref, and I shall expect you to arrive at Brussels to-morrow morning. You will march this evening if I form my plan early enough for you to be informed of it to-day, and to accomplish three or four leagues this evening, and to be at Brussels at seven o'clock to-morrow morning.

“You can, then, dispose your troops in the following manner:—The first division at two leagues in advance of Quatre Bras, and if there is no hindrance; six divisions of infantry about Quatre Bras, and one division at Marbais, in order that I may draw them to me at Sombref if I want them; besides, it will not retard your march: Count de Valmy's corps (3rd corps reserve cavalry) at the crossing of the Roman road with that of Brussels, so that I can draw it towards me if I want it; as soon as I have done my part, I will send him the order to rejoin you. I wish to have with me General Lefebvre-Desnouettes's division of the Guard (light

cavalry), and I send you Count de Valmy's two divisions to replace it. But in my actual plan I prefer to place Count de Valmy where I may recall him if I want him, and not cause General Lefebvre-Desnouettes to make useless marches, since it is probable that I may decide this evening to march on Brussels with the Guard. However, cover Lefebvre-Desnouettes's division with D'Erlon's and Reille's two divisions of cavalry, so as to spare the Guard, and because if there is any warm work with the English, it had better fall on the Line than on the Guard.

"You perceive thoroughly the importance attached to the taking of Brussels. That will, besides, throw open some chances; for a movement so prompt and sudden will cut off the English army from Mons, Ostend, &c.

"I desire your dispositions may be made so as to march your eight divisions at the first order on Brussels."

At two o'clock the same afternoon he writes thus to Ney through Soult:—

"The Emperor charges me to inform you that the enemy has assembled one corps of troops between Sombref and Bry, and that at half-past two Marshal Grouchy will attack it with the third and fourth corps.

"His Majesty intends that you also should attack whatever is in front of you, and, having pressed the enemy vigorously, that you should manœuvre towards us, to aid in enveloping the corps of which I have spoken. If this corps is driven back first, then his Majesty will manœuvre in your direction, to facilitate in like manner your operations."

Ney had also been informed in the morning by the commander of the first corps, Reille, who was at Gosselies, that the Prussian cavalry was still about Fleurus, and that large columns from Namur were advancing, and forming at St Amand.

He put the left wing in motion, in obedience to the Emperor's orders, and, pushing back the Dutch-Belgian detachment at Frasne, continued to advance, till at two o'clock the head of his column was in presence of Perponcher's division at Quatre Bras.^{2.}

Wellington arrived at Quatre Bras from Brussels between 11 and 12 o'clock. From thence he reconnoitred Ney's position, and, concluding the enemy was not in force there, rode off to concert with Blucher, whom he found at a windmill between Ligny and Bry. He then saw the French

dispositions for attack, and concluded that Napoleon was bringing his main force against the Prussians. To assist them the Duke proposed to concentrate a sufficient force as soon as possible at Quatre Bras, march it upon Frasne and Gosselies, and from thence operate against the enemy's flank and rear. However, on calculating the time that must necessarily elapse before this sufficient force could be concentrated, and finding that Blucher might be defeated in the interval, it was agreed that, in order to save time, the Duke should move this supporting force down the Namur road, and thus come directly to the aid of his colleague.

Quatre Bras
to Ligny, 8.

About 11 o'clock Napoleon arrived on the field beyond Fleurus. By 1 o'clock he had formed all his troops that had then arrived (60,000, with 204 guns) in order of battle. After making a reconnaissance in person, and receiving reports from his generals of the assembling of the Prussians for battle, he still thought that only one corps, that of Zieten, was before him. He directed Grouchy, with two corps of infantry and three of reserve cavalry, to attack it about half-past 2, and thus commenced the battle of Ligny. The three Prussian corps numbered more than 80,000 men, with 224 guns. About half-past 5, Lobau, bringing the rear of the centre from Charleroi, augmented the French force to 71,000 with 242 guns.

Battle of
Ligny.

During the battle, Napoleon, becoming better aware of the force he was engaging, sent an order to Ney to direct D'Erlon's corps on St Amand. But Ney, after getting Napoleon's first orders (dated 8 o'clock), had directed D'Erlon on Frasne. He was near that place with the advanced-guard of his corps when an aide-de-camp from Napoleon reached him, who said that the Emperor, hotly engaged, needed aid, and that he had taken on himself to turn the head of the column towards St Amand by Villers Perruin. D'Erlon, sending to apprise Ney, followed to direct the movement of his corps (20,500 men and 46 guns). He arrived on the flank of the Prussians, and the head of his column had entered into the action of Ligny, when he received from Ney a peremptory recall. Accordingly he countermarched towards Frasne, and reached Ney at night-fall, after the action at Quatre Bras was ended.

Frasne to St
Amand, 7.

Retreat of
the Prussians.

It was almost night when the battle of Ligny drew to a close with the defeat of the Prussians. The corps of Zieten and Pirch retired to Tilly and Gentinnes; that of Thielemann, which covered the retreat, to Gembloux.

Meanwhile Ney, approaching Quatre Bras about 2 o'clock, had in hand 17,000 men and 38 guns to attack Perponcher's division of 7000 men and 16 guns. The Dutch-Belgians sustained the first attack made with the head of the French column till half-past 3, when 2000 Dutch-Belgian cavalry which had assembled at Nivelles, in falling back from the country between Rœulx, Mons, and Binche, came on the field at the same time as Picton's division, which, detained for further orders at the junction of Mont St Jean, had been summoned to Quatre Bras by an order of the Duke, who had returned from his interview with Blucher in time to confront Ney. Brunswick's corps followed Picton's, when the Duke had 18,000 infantry, 2000 cavalry, 28 guns; Ney, as before, 15,700 infantry, 1800 cavalry, 38 guns.

The next reinforcement was to the French. Kellermann joined Ney, who now had 3700 cavalry, 44 guns.

At 5 o'clock Halkett's brigade of Alten's division from Braine-le-Comte, and Kielmansegge's Hanoverian brigade with two field-batteries, joined Wellington, raising his force to 24,000 infantry, 2000 (defeated) cavalry, 40 guns.

Ney was also then reinforced by Kellermann's remaining division of heavy cavalry and troop of artillery. He now had 15,700 infantry, 5000 cavalry, 50 guns. Thus the battle was continued with a sufficiently even balance of force—the French counting 3000 cavalry and 10 guns against the Duke's excess of 8000 infantry.

At half-past 5, Ney, aware of the last reinforcement to the English, ordered D'Erlon up. Between 6 and 7 he learnt that his general had been directed on St Amand. He sent to recall him. Meanwhile the Anglo-Belgians had been reinforced as follows:—12 guns of Alten's division, 6 of the King's German Legion, 1 Hanoverian, 2 Brunswick battalions, the 1st British division from Enghien, with 12 guns. Wellington now had 30,000 infantry, 2000 cavalry, 68 guns. The French remained as before. Ney relinquished the conflict at nightfall. Both sides bivouacked on the ground.

17th June.—Wellington remained ignorant of Blucher's fortunes all night. But daylight showed him that Ney was still in position in his front, which would hardly have been the case had Napoleon been defeated. A reconnaissance along the Namur road ascertained that the

French were upon it, between Quatre Bras and Ligny; and an aide-de-camp from Blucher shortly afterwards reached the Duke, having come by a road farther in rear. Wellington sent his ally word that he would fall back towards Waterloo to effect a junction with him; and that, if Blucher would join him with two corps, he would await Napoleon's onset there.

Ninhove to
Quatre Bras,
35.
British
retreat.
French centre
combines
with left.

Uxbridge's cavalry from Ninhove had come in in the night. Covered by it, Wellington began in the forenoon to withdraw his forces from Quatre Bras through Genappe upon Waterloo. This movement was almost completed when in the afternoon Napoleon's advanced-guard from Ligny appeared, and pressed the rear of the British cavalry as it retired through Genappe.

The British troops from the right, then at Nivelles and Braine-le-Comte, were directed on Mont St Jean.

From Waterloo the Duke sent the following despatch to General Colville:—

"The army retired this day from its position at Quatre Bras to its present position in front of Waterloo.

Hal to Wel-
lington's
right, 10.

"The brigades of the 4th division at Braine-le-Comte to retire at daylight to-morrow upon Hal.

"General Colville must be decided by the intelligence he receives of the enemy's movements in his march to Hal, whether he moves by the direct route or by Enghien.

"Prince Frederick of Orange is to occupy with his corps the position between Hal and Enghien, and is to defend it as long as possible.

"The army will probably continue in its present position in front of Waterloo to-morrow."

Gentinnès to
Wavre, 10.

On the side of the Prussians, Zieten and Pirch retired from Tilly and Gentinnès by Mont St Guibert. Zieten's corps crossed the Dyle at Wavre and took up a position; Pirch's halted on the right bank.

Thielemann, arriving at Gembloux, found Bulow near that place. Receiving orders for the general concentration, Bulow's corps moved on Wavre, followed by Thielemann's.

French right
pursues the
Prussians.

Napoleon's army remained at Ligny till the afternoon, when Grouchy with 33,000 men was sent in pursuit of the Prussians. His orders were to follow them, complete their route, and never lose sight of them. He

followed in the direction of Gembloux, and arriving there at 9 in the evening, many hours after the Prussians had left, reported to Napoleon at ten that he believed the Prussians to be divided into three columns, one retreating to Wavre, one to Perwez, the third to Namur.

Napoleon quitted the field of Ligny with the rest of his army about the same time as Grouchy, and moved by the Namur road to Quatre Bras, where Ney was still in position. Their combined forces then followed Wellington's march to Waterloo, where the Duke was in position in front of the junction of the Nivelles and Genappe roads, with his centre across the latter.

18th June.—Between 11 and 12 the French commenced their attack on Wellington.

Prussian movements:—

Bulow at daybreak, through Wavre to St Lambert.
Zieten at noon, by Ohain towards Frischermont.
Pirch at noon, through Wavre to follow Bulow.

Quatre Bras
to field of
Waterloo, 8.

Wavre to
Frischermont,
10.

At 8 in the morning, Grouchy, who had been reconnoitring on several roads for intelligence, began his advance by Sart-à-Walhain upon Wavre, and at noon his advanced-guard attacked Pirch's rear-guard on the right bank of the Dyle. Thielemann's corps, which was to have followed Zieten, was left on the Dyle at Wavre to oppose Grouchy.

At 5 in the afternoon Bulow's advanced troops issued on the French right at Planchenoit.

At 7 in the evening Zieten's advanced troops joined Wellington's left at Frischermont.

At 7 also Pirch arrived in rear of Bulow, and was directed on Maransart.

The arrival of the Prussians decided the battle, and their attack being on the French flank and rear, while the English advanced on the front of the enemy, the defeated army was completely routed, and fled over the frontier by the great road of Charleroi, pursued by the Prussians.

19th June.—The main French army, almost dispersed, continued its flight.

Grouchy, who had spent the preceding day in attacking Thielemann on the Dyle, renewed the engagement at daybreak, and drove Thiele-

Thielemann's
corps a re-
tarding force.
Allied armies
combine.

French de-
feated.

French right
wing, though
successful,
retreats.

mann's corps towards Louvain; but intelligence reached him at 11 o'clock of the defeat of Napoleon the day before. Masking the movement by troops on the Dyle, he at once began his retreat by Mont St Guibert, upon Gembloux, for Namur.

Wavre to
Namur, 28.

Pirch's Prussian corps marched on the night of the 18th to intercept Grouchy. It reached a point between Tilly and Gentinnes on the 19th at mid-day, but failed to advance further, or to discover that Grouchy's force was crossing its front.

Next day Thielemann and Pirch pressed the rear of Grouchy, who, leaving a division in Namur, made good the retreat of his corps along the Meuse by Dinant, and passed the frontier in good order.

COMMENTS.

Former chapters will have made the reader acquainted with the grounds on which Napoleon framed the design of this campaign, and threw himself with a force very inferior to that of the Allies upon their centre.

Disadvantage
of divergent
bases.

In 1796, as in 1815, the armies opposed to him had advanced from divergent bases till they united; and when he pierced their centre and destroyed their concert, Beaulieu had retired upon Acqui, Colli upon Turin. It was to be expected, therefore, that if the centre of the Allies in Belgium were pierced, they also would retire towards their bases; that is to say, Blucher would take the direction of Liege, Wellington of Ostend or of Antwerp. And in their case a far greater difficulty would be offered to reunion than in that of Beaulieu and Colli, owing to the greater divergency of the bases and the lines that led to them. For if Blucher, driven from the line Sombref-Liege, should attempt to rejoin his colleague by that of Wavre-Liege, he would be operating on a front parallel to his line of communication; and the risk he ran is evident from the fact that on the 19th, Grouchy, by defeating Thielemann on the Dyle, actually cut him from that line. Supposing, then, that Napoleon had beaten Wellington before Blucher's arrival on the field, the Prussian general would have found himself in the presence of a victorious enemy, with his own retreat cut off. Had he attempted to recover his communications with Cologne by Louvain-Maestricht, the French from Wavre

would have been on that line before him, when another lost battle would have been ruin.

Remembering, then, the triumphs of his earlier campaign, and perceiving still greater advantages for an attack of the same kind upon the Allies in Belgium, Napoleon provided for it from the outset by dividing his army into two wings, with which to feel the enemy on each side, and a central reserve to reinforce either at discretion. Thus, first, he joined his centre to his right against Blucher at Ligny; then, leaving his right wing to pursue the Prussians, he joined the main body to the left wing for the attack on Wellington. The recollection of what he aimed at, and of the result which precedents had led him to expect, furnishes a key to the incidents (many of them still disputed and misinterpreted) of the whole campaign.

French operate in two wings and Reserve.

Why did Napoleon throw his weight in the first instance on the Prussians at Ligny rather than on the English at Quatre Bras?—the intention to do which was made evident by the direction of his centre upon Fleurus before he knew what the proportions of the hostile forces at those points might be.

Reasons for attacking Blucher first.

The essential conditions of Napoleon's plan were, to keep the Allies from uniting, and also to separate them in such a way as to open the road to Brussels.

The separation and consequent retreat of the Allies would be accomplished with equal certainty by seizing either of the two points, Quatre Bras or Sombref. So far it would seem almost a matter of indifference which might be the chief object of attack. But the Allied generals would then seek to reunite on the next available line. If either of them would attempt this movement with greater difficulty and risk than the other, it would be good policy to attack him first, since defeat added to his other disadvantages might render a junction impossible before his colleague should be defeated also.

The other Prussian corps were marching to join Zieten's by the roads Ciney-Namur and Liege-Hottomont. Pirch from Namur would be the first to join Zieten. Were Pirch and Zieten defeated, or Zieten only, before being supported, they would, by retiring on Hottomont, be separated from Thielemann, or, by retiring on Namur, be separated from Bulow. If hotly pursued, it might be necessary to retreat to Hannut or

Liege. For, as already stated, the course proper for the parts of an army thus separated is to retreat in order to recombine; and Blucher must unite his own forces before he could aid his colleague. But at Hannut, Liege, or even Hottomont, he would still be very far either from Wellington or Brussels.

On the other hand, supposing that Napoleon had reversed the actual order of events, and had first brought his centre to aid Ney against Wellington, and, leaving his left wing to pursue the British, had next brought his centre to the aid of Grouchy against Blucher, Wellington, driven from Quatre Bras, would have retreated, as he did, towards Waterloo; his troops, then on the march to join him, would have been directed, as they were, on Hal, whence Ney could not have prevented them from marching to join Wellington. Meanwhile Blucher (who could not have been prevented by the small force in his front from assembling his army), aware of his colleague's retreat, would have marched to Wavre on the 17th, followed by the main French army. Posted on the Dyle, he could have maintained the battle till Wellington, leaving a force to contain Ney, should bring the rest of his army to La Hulpe or Wavre to overwhelm Napoleon. The great battle which was fought at Waterloo would have been fought at Wavre by the Allies united.

If, then, Blucher were attacked *before he could assemble his corps*, he would be driven apart from his objects; if Wellington were so attacked, he would not lose his hold either of Brussels or of his colleague. The general plan of Napoleon was perfectly calculated for success, and it was good policy to attack Blucher first.

Cause of
failure.

But this plan failed in execution. Now we have already seen how much depends on promptitude of movement in operations of this kind. Napoleon did not attack at Ligny till two in the afternoon, when Pirch and Thielemann were with Zieten in line of battle, and when Bulow, but for his delay, should also have been on the field. And the reason why he did not attack sooner was, that only the heads of his columns were before the enemy. Now, as all the French troops started from the same bivouacs, there was no reason why, on those fine roads, the rear of the columns, which marched but did not fight, should not have accomplished the same distance as the heads, which both marched and fought. Had the army bivouacked in order of battle instead of in order of march, it

would have been ready next day to defeat Zieten perhaps before Pirch had joined, certainly before the arrival of Thielemann.

In spite of these considerations, M. Thiers, in his zeal for the character of Napoleon as a general, has not scrupled to assume that the Emperor delayed to attack at Ligny in order that all the Prussians might assemble, and thus give him an opportunity of crushing them at once. It is not necessary to point out to the readers of this work, nor to any one acquainted with Napoleon's method of making war, how absurd is this assumption.

From the same motive the French historian severely blames Marshal Ney for not advancing towards Brussels before the battle of Ligny on the morning of the 16th, and afterwards on the morning of the 17th. It would of course have been extremely rash for Ney to have advanced beyond the Nivelles-Namur road till Napoleon had reached it with the main body, for he would have been exposing his flanks to the British from Nivelles, and to the Prussians from Sombref; and had the main French army been defeated at Ligny, his retreat would have been cut off. Under these circumstances nothing but an explicit order from Napoleon to advance at all hazards would have justified him in making the attempt. But the Emperor's orders of eight in the morning of the 16th were given under the supposition that Sombref and Quatre Bras would be occupied with little or no fighting, and that Brussels would be open to the French, and attainable in a single march. A chief in Ney's position must have discretionary power—and he is quite justified in using it when his instructions prove to have been given on a false theory of the facts. Moreover, Napoleon had attached to his orders the condition that "there should be no hindrance" to their execution. On the 16th, then, Ney did all that could be expected from a commander in his position, by preventing Wellington from aiding Blucher, and by covering the line of communication with France.

Ney's containing force could not advance alone.

Whatever excuse may be made for Napoleon's inactivity on the 17th applies also to Ney, whose troops had marched, fought, and suffered in action, quite as much as the centre and right wing. It was the object of the French to unite for the attack on Wellington, and their end would be best answered if the English should remain in their position at Quatre Bras till Ney's attack in front could be supported by Napoleon's in flank.

As the retreat of the British was concealed till the last moment, Ney's best policy, under the apparent circumstances, was to await the Emperor's arrival, rather than risk defeat by assailing a superior enemy who had already proved too strong for him.

Movements of
the pursuing
wing.

The charges against Grouchy, made by various writers, resolve themselves into these:—

1st, That he ought to have pursued the Prussians in the direction of Wavre instead of towards Liege and Namur.

It is a sufficient answer to this, that Napoleon himself indicated the direction of the pursuit. In the first despatch from Soult to Ney of the 17th is the following passage:—"The Prussian army is routed. General Pajol is pursuing it on the roads of Namur and Liege."

2nd, That Grouchy ought to have manœuvred constantly towards Napoleon.

In giving Grouchy his final instructions on the 17th, Napoleon said, "Communicate with me by the paved road that leads to Quatre Bras." This injunction was consistent only with a movement towards Liege or Namur—not towards Wavre; and had the Prussians really, as Napoleon supposed, retreated towards the former places, Grouchy, by moving in the direction of Wavre, would have uncovered to them the communications of the main army with Charleroi—to guard which against an offensive return of the enemy was one principal object of detaching the right wing.

3rd, That Grouchy, on the night of the 17th, had reason to suppose, as we learn from his report, that the Prussians were moving in three columns, one on Wavre, one on Perwez, one on Namur; that he inferred that one of these columns might be intending to join Wellington, and that he should therefore have moved towards Napoleon.

But this is founded on the supposition that Grouchy knew Wellington would stop to fight at Waterloo, whereas he knew nothing of the sort; and he thought the Prussians, if they were really moving on Wavre, intended to join Wellington at Brussels. For he says in the same report, "If the mass of the Prussians is retiring on Wavre, I will follow in that direction, so that they may not gain *Brussels*, and that I may separate them from Wellington." And were they so moving, he, by marching to Wavre, would threaten decisively their communications with

their base by Louvain, and so either prevent the execution of their project or render it disastrous.

4th, That Grouchy, when he heard the cannonade of Waterloo, ought to have turned towards the field.

If Grouchy had known that Blucher was moving from Wavre upon Waterloo—and if he could have marched himself towards that field with a fair prospect of joining Napoleon—he certainly should have attempted the movement; but his belief probably was, and continued to be, that the march which Thielemann's rear-guard was covering, was on Brussels or Louvain by the highroad, not on Waterloo by country roads. It was in this persuasion that he continued to attack Thielemann on the 19th. When Napoleon detached him to pursue the Prussians, it was with the understanding that the Emperor would engage Wellington with the French main body and Ney's force *only*, and it was no part of Grouchy's business to combine with his chief for that purpose. And had the theory entertained by Napoleon and himself of the Prussian movements been correct, it was clear that by seizing Wavre he would be in a commanding position. For should Blucher be moving on Brussels, Grouchy at Wavre would by an advance on Louvain cut him from his last line of communication with his base. Should Blucher be moving on Louvain in order to cover this his last line, Grouchy would join Napoleon at Brussels after the defeat which Wellington might be expected to sustain in standing to fight alone, and the whole French army would continue to be interposed between the Allies.

In fact, all the criticisms passed on Grouchy have been founded on a false conception of the duties of a containing force, and of Napoleon's general plan, or else have sprung from a failure to appreciate the facts as they presented themselves at the moment of action. As was said in a preceding chapter, for the execution of an operation of this kind it is necessary that the army so employed should preserve a superiority over its immediate enemy *after* detaching a force in pursuit of the portion first defeated. Grouchy was so detached; that his operations were ineffective was due to the tardiness of his pursuit, which, as well as its wrong direction, was owing to the false theory formed by Napoleon of the Prussian retreat, and confirmed in his mind by the precedent of 1796.

As to the prospect of Grouchy joining Napoleon after he heard the

cannonade of Waterloo, it is only necessary to remember that Zieten, marching from Wavre at noon, and unobstructed except by the difficulties of the road, only reached the field between seven and eight in the evening; and that Thielemann's and part both of Pirch's and Zieten's corps would have been available to oppose Grouchy's march without diverting from the field of Waterloo a single man who fought there. The Prussian outposts extended along the Dyle all round Grouchy's left flank, so that he could not have attempted the movement unknown to the enemy.

The force with which Napoleon operated was scarcely sufficient. For though he defeated the Prussians at Ligny, and was superior to Wellington at Waterloo, yet the absence of Bulow from one field, and of the 17,000 men left by Wellington at Hal from the other, were advantages scarcely to be calculated on. No doubt the Emperor counted, and justly, on his own skill and renown to make good the deficiency. But in ordinary cases the existing odds—namely, 206,000 against 125,000—would be too great for the attempt.

Quatre Bras and Sombref (meaning by the last-named the junction of the Liege and Namur roads) furnish additional examples of points of no special topographical importance becoming decisive by their relations to the forces in the theatre.

Why did Wellington station at Hal a force which was useless there, and would have been so valuable to him at Waterloo? This question is only to be solved by remembering what Wellington thought of the facts *as they presented themselves to him at a given time*; and by limiting ourselves to his horizon, instead of embracing that which is widened by our knowledge of the real circumstances. *Wellington could not know on the 17th or 18th that the French right wing was detached to follow Blucher.* For all he knew, the entire French army might be following himself. And if a French force *had* been detached to operate against Wellington's communications with Ostend (of which he was so jealous), by seizing Hal, and from thence threatening even Brussels and the line to Antwerp, it would only be executing against the British a manœuvre corresponding to that which Grouchy was actually executing against the Prussians. But this, though it may account for the direction of this British detachment on Hal on the 17th, does not satisfactorily explain its



detention there during the whole of the 18th, at only ten miles from that field where it might have afforded such essential aid.

Having seen what are the disadvantages under which allied armies operate from divergent bases, let us consider what is to be said on the other side.

When Wellington concerted with Blucher at Bry operations against Napoleon on the 16th, he proposed to aid him by advancing against Napoleon's left flank and rear by the Gosselies road. In doing so he would have covered his own line to Ostend.

Advantage
of divergent
bases to com-
bined armies.

When Napoleon followed Wellington to Waterloo, he detached Grouchy partly to cover his flank and rear, which were especially exposed, because if the Prussians should advance towards Quatre Bras or Charleroi, they would still cover their own line to Liege.

And, lastly, when Blucher approached Waterloo, he attacked Napoleon in the most fatal direction, being himself on a front which covered from the main French army the line through Wavre to Liege.

Thus the divergence of the bases of the Allied armies enabled them to deliver their blows in the most fatally decisive manner against the enemy's flank and rear; which, had they operated from a common base, such as Antwerp, they could not have done without exposing their own communications.

If, then, allied armies, operating from divergent bases, *can combine*, their operation will be more effective than if they had a common base.¹ But from the moment that their concert is destroyed by the interposition of an adequate force, the chances are against them.

The reader will appreciate the loyalty of Blucher to his colleague and to the common cause, in advancing to Waterloo notwithstanding that Grouchy was descending perpendicularly on his line of communication with his base.

¹ The truth of this assertion was illustrated, very soon after the publication of the work, by the victory of Königgratz, where the two Prussian armies, advancing from different sides of the theatre, combined their attack with fatal effect.

CHAPTER VI.

CASE OF DISLODGING AN ARMY BY OPERATING WITH A DETACHMENT AGAINST ITS REAR.—CAMPAIGN IN GEORGIA, 1864.¹

(See woodcut on p. 209.)

IN May, General Sherman commanded the Federal forces assembled at Chattanooga, on the left bank of the Tennessee. He had from 90,000 to 100,000 men.

Federal forces.

Macpherson commanded 23,000 on the right.

Thomas 45,000 in the centre.

Schofield 13,000 on the left.

Garrard's cavalry, 5000.

Stoneman's	} numbers not recorded.
M'Cook's	

The object was to occupy the enemy's troops in Georgia, and to gain possession of Atlanta.

Confederate forces.

Opposed was General Johnston; at first with 40,000 men, afterwards reinforced to 54,000. His object was to obstruct Sherman as much as possible, and to cover Atlanta to the last moment.

¹ In the first edition, the operations in Georgia were imperfectly (though not incorrectly) described, for want of detailed information and a good map. General Sherman saw a copy of the work, and, with a frankness remarkable in one so greatly distinguished in high command, caused a copy of his own report of the campaign to be conveyed to the author, along with a letter containing the following passage:—

“A good many of the English commentaries and criticisms err, because it is impossible for them to see why well-established principles of war had to be modified to suit the peculiar geography and forest nature of our country. Thus, I think, if Colonel Hamley were to visit the ground about Dalton and Resaca, he would modify his chapter treating of my dispositions there. Though I divided my force (generally, but by no means always, a violation of a rule of war), Johnston could not have fallen on Macpherson without doing just what I wanted—viz., letting go forts and parapets, and a natural position that might

The whole theatre is generally hilly and wooded. The district between Chattanooga and Dalton is crossed by considerable ridges in the direction of the rivers, penetrated by gaps, in one of which lies the railway from Chattanooga by Dalton, Resaca, Kingston, and Marietta to Atlanta and Macon, with branches from Rome and Decatur.

The nature of the country and communications made the railway especially valuable to both armies.

Sherman held the country nearly as far as Dalton, where Johnston's headquarters were, and before which he was strongly posted.

Sherman's immediate base was Chattanooga.

Bases.

Johnston was bound to the line from Dalton to Atlanta.

Dalton to

The Federal general found the position too formidable to be assailed in front. He therefore resolved to turn it.

Atlanta, 90.

6th to 11th May.—Leaving one of Thomas's divisions intrenched in the hills opposite Johnston, to guard the line to Chattanooga, and to make feints against the front, he pushed Macpherson by Villanow through a gap in the ridge, supporting him by the rest of Thomas's corps and a body of cavalry, in all between 50,000 and 60,000. This force was to threaten the line between Tilton and Resaca.

Schofield, from the left about Varnells, was, after feeling towards Dalton, to withdraw and follow the flanking movement.

Finding Resaca too strong for an attack, Macpherson took position in the gap he had issued by, to await the assembly of the army.

Johnston, perceiving the formidable nature of the menace against his communications, made good his retreat to Resaca.

11th to 19th May.—Sherman drew his army round Resaca, and threatened to pass between it and Rome. Johnston evacuated Resaca, destroy-

have cost me 20,000 men to have dislodged by a direct attack. Johnston could not make a detachment large enough to endanger Macpherson, who, on the defensive, would have had the woods and range of hills at Snake Creek in his favour, and I had good roads by the rear to reinforce Macpherson in one march."

This refers to a passage in the Comments on this chapter in the first edition, where it was assumed that Johnston's best chance was probably on the 10th May, when, leaving a garrison in his works, he might have sallied and overwhelmed the turning force under Macpherson; and a deduction as to the proper mode of conducting operations of the kind was made, which was unjust to Sherman's generalship. For that commander had actually operated in the way suggested as the best; and the author, in amending the text, has the satisfaction not only of cancelling a wrong, but of quoting, in confirmation of his own views, the practice of so successful a leader.

ing the railway bridge; and Sherman advanced on Kingston and Rome, strengthening Resaca as a depot.

19th to 27th May.—Johnston retired behind the Etowa. Sherman, to avoid a strong pass at Allatoona, moved his army to the right across the Etowa on Dallas.

27th May to 16th June.—Sherman, finding Johnston's left on Lost Mountain too strong for attack, worked round by his own left to Allatoona, where he occupied and strengthened the pass, and directed a general attack, which caused Johnston to abandon Lost Mountain, and to concentrate, with his centre, on Kenesaw Mountain, and his flanks thrown back to cover Marietta and the railway.

27th June.—Sherman attacked the position, and was repulsed.

1st to 10th July.—Sherman, having resolved to turn the position, and for that purpose to cast loose from the railway with ten days' supplies in waggons, pushed his right, under Macpherson, down the Sandtown road, towards the Chattahoochee, to a point within three miles of the river and five of the railway. This threat against his rear caused Johnston to evacuate his position and cross the Chattahoochee.

11th to 19th July.—Johnston, having burnt his bridges, had lost much of his power of offence. Sherman, sending Stoneman's cavalry to cross far up the Chattahoochee and threaten the railway south of Atlanta, caused Macpherson to support the movement by a feint on Turner's Ferry. Meanwhile he seized the passage at Roswell with Garrard's cavalry supported by Schofield's corps, and fortified Allatoona and Marietta. He then drew Macpherson's corps from right to left, crossed on the Confederate right between Roswell and Atlanta, and moved towards the town, his left under Thomas seizing Decatur.

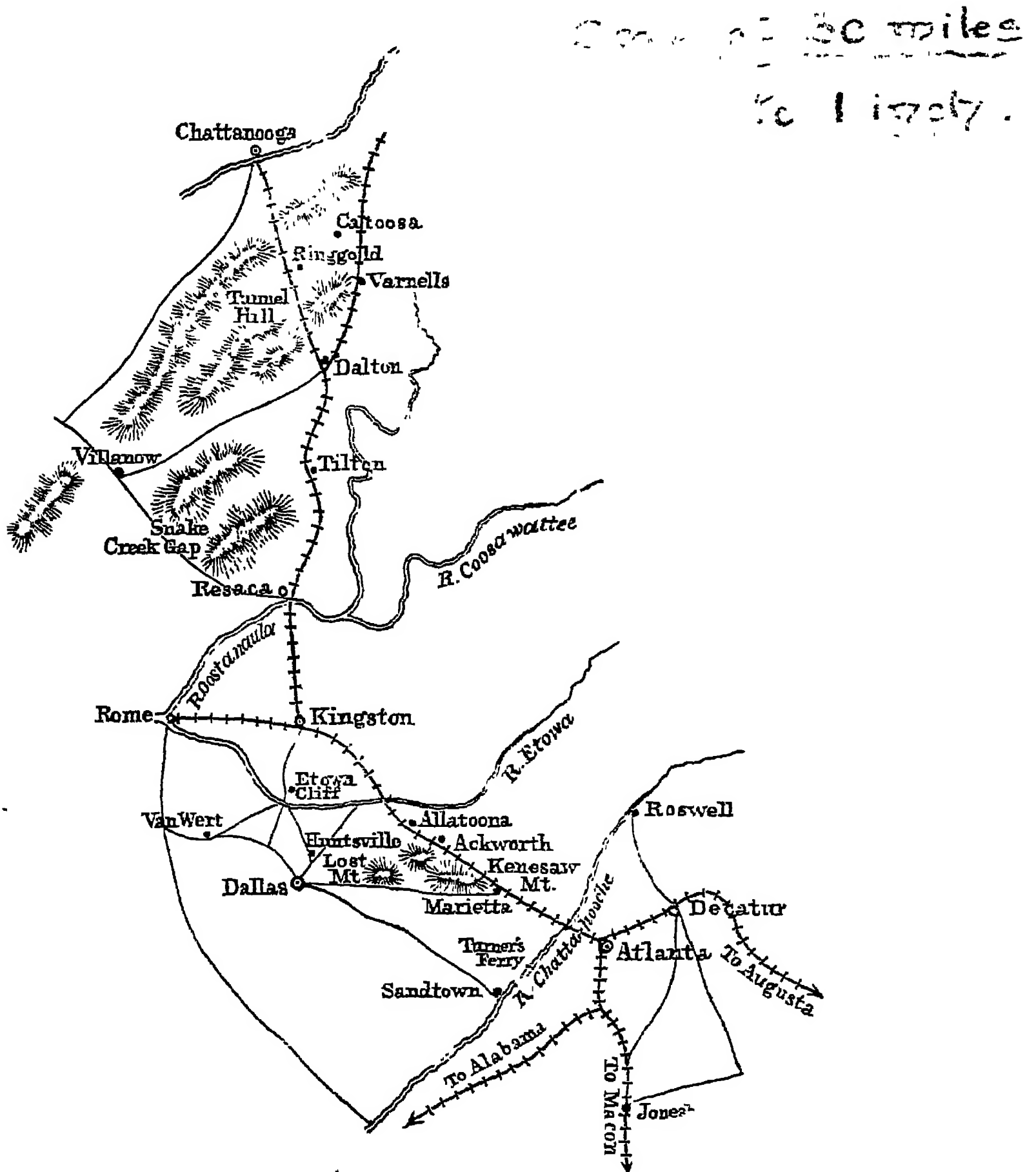
Johnston was replaced by Hood in command of the Confederate army.

22nd July.—Hood massed his forces on the extreme Federal left, rolled up part of two corps, killed Macpherson, and got into Decatur, but was driven within his lines. Howard succeeded Macpherson.

24th July to 30th August.—The Federals intrenched around Atlanta on the eastern side of the defences. The cavalry corps of Stoneman and M'Cook were despatched to the southward by a wide circuit to break up the railways. They were surrounded by superior forces, lost 1800 men,

and Stoneman was captured. The Federals, however, were reinforced by 2500 cavalry under General Rousseau.

The place being considered impregnable, and attempts to break in having failed, Sherman left a force intrenched before his bridge of the Chattahoochee, and directed the corps of Schofield, Thomas, and Howard upon Jonesboro'.



1st September.—Hood had moved part of his army to Jonesboro', where it was attacked and defeated.

Thereupon he evacuated Atlanta.

COMMENTS.

Except in attacking the Kenesaw Mountain on the 27th June, the character of Sherman's operations was throughout the same. To protect his main line from a counter-attack, he left a force intrenched across it. He then reinforced his flanking wing to a strength sufficient to cope with the whole army of the enemy, and directed it by a circuit off the main line, upon the Confederate rear. In every case the operation was successful, obliging Johnston forthwith to abandon his strongest positions, and to retreat.

The superiority of numbers warranted, therefore, in this case, a separation of the army, and was turned to account in a manner which may form an example of what is the best mode of operating in similar circumstances.

It appears, then, that in certain circumstances, and with great odds, it may be judicious, or indeed inevitable, to separate an army for the sake of dislodging an enemy by threatening his rear. But it is also clear that when a commander, tempted by the promise of a brilliant result, operates in this way, he is at any rate giving so much advantage to his adversary as may consist in the chance of fighting the whole hostile force with a part instead of the whole of his own. And it is evident that, by operating with his entire force on one line, he would deprive the enemy of that chance. Nevertheless, these flanking operations are frequently undertaken. It is useful, then, to consider under what circumstances they are judicious.

If, as in Sherman's case, the enemy is so strongly posted as to render a front attack on him inexpedient, there will be no other course than to detach a force to turn the position. And if the assailant also possesses a strong position on the main line, it will be best to reinforce the flanking wing till it is equal to the whole numbers which the enemy can possibly bring on that side, and order it not to halt till it has attained the point

aimed at; holding, meanwhile, the aforesaid position with the rest of the army. Should the enemy detach a part only of his forces to meet this attack on his flank or rear, he will be beaten. Should he meet it with his whole army, he abandons the position in which his strength lay.

When Wellington advanced from Portugal in 1813, he knew that the French had a strong line behind the Douro, which they might hold against his whole army. But they could only bring to the defence of that line about 35,000 men. Therefore Wellington sent 40,000 men across to the northern bank of the Douro, within the Portuguese frontier, under Graham, who advanced to the Esla, while with the rest of his forces the English commander moved by Salamanca to the southern bank. Graham, crossing the Esla, came on the flank of the French, who thereupon abandoned the line of the Douro, and Wellington assembled his army on the northern bank unmolested. Had he followed Graham's movement with his whole army, he would have left Portugal, with all his depots and his base, exposed to an advance of the enemy.

It appears, then, that this separation is judicious—

Separation,
when judi-
cious.

1st, When the front of a position is unassailable, and a movement against the enemy's flank with the entire army impracticable or unsafe.

2ndly, When the roads do not admit of the entire army advancing in effective order.¹

Thus it was with great difficulty that a Northern army could advance to the Rappahannock by the line of Centreville-Warrenton, even with the aid of the railway; for the country was so wooded and broken that the troops could rarely move on an extended front, and the difficulties of supply were great and increasing. Consequently the line of march grew so extended that the superiority of numbers was lost. For this reason, if for no other, part of the great hosts assembled on the Potomac were always directed on some other line, such as Fredericksburg or the Shenandoah.

3rdly, When the superior army possesses divergent lines of retreat to, and communication with, its own frontiers.

For, as in the case of the allied army of Wellington and Blucher, the

¹ The above was published in May 1866. In June of that year the Prussian armies invaded Bohemia on a double line, and one main justification alleged by their Staff for the step was, that the entire army could not have advanced in effective order by one set of mountain roads, but would have extended in columns so lengthened that it would have been impossible to form on a front commensurate with its numbers.

risk in case of defeat will be greatly diminished, as compared with that of an army detaching a force from its single line; and the effect will be greater, for the direction of the combined armies must bring one of them on the enemy's flank or rear. It will depend on the relative proportions of the hostile forces whether the promise of decisive success will compensate for the risk of losing the power of concerted action, and being separately defeated.

CHAPTER VII.

GENERAL CONCLUSIONS FROM THE FOREGOING EXAMPLES.

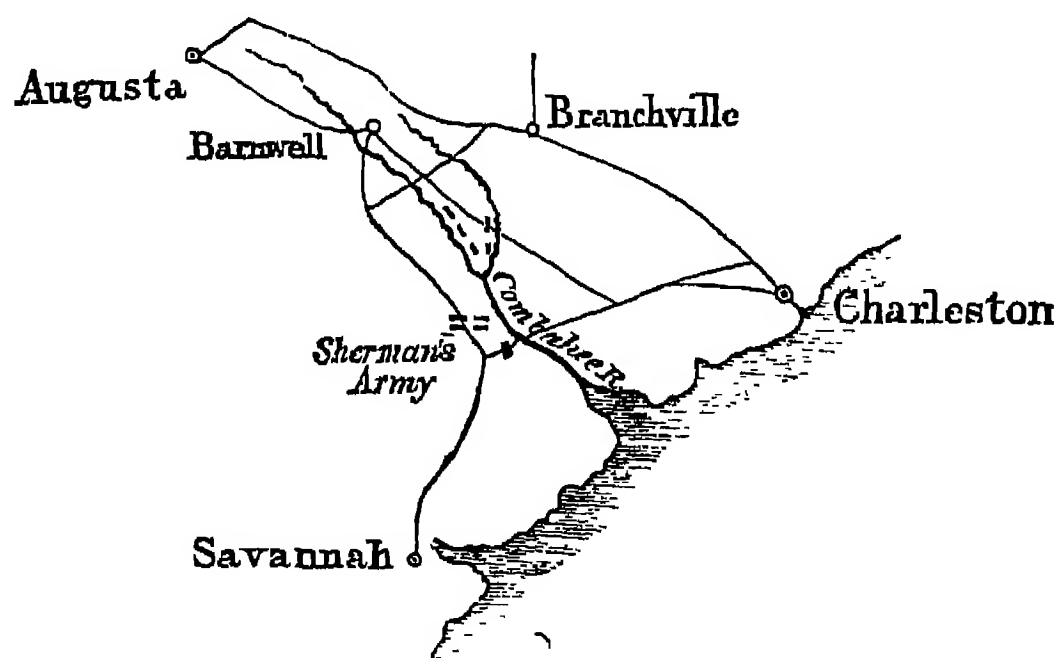
THAT the disadvantages of separating the parts of an army, though fore-
 seen, are often incurred, is evident from history. And this may happen
 from many causes. As at Eckmuhl, a commander ignorant of the exact
 position of the adversary may, in expectation of an immediate result,
 make a movement which lays him open to the penalty for dividing his
 army. In 1859, Louis Napoleon would doubtless have preferred to
 operate entirely from Genoa, where he possessed the advantage of a fine
 and fortified harbour, and whither his troops and stores could be con-
 veyed *en masse* by the easy mode of water-transport. But in the mean-
 time the situation of the Sardinian capital, imminently menaced, and
 covered only by a very weak army, afforded a pressing reason for sending
 part of the French troops by the Mont Cenis. The junction of the French
 army was to take place in the great plain between the Bormida and the
 Scrivia; but till it was effected, the French corps on the two lines were
 exposed to all the risk of being separately assailed.

Risks of
 separation
 often in-
 curred.

Another fertile source of separation is the attempt, so frequently made,
 to cover two distant and divergent objects. Territories, lying apart from
 the indispensable line, must perhaps be protected, else they would be over-
 run by the enemy, or, by revolting, would increase the difficulties of the
 situation. Or two cities far distant from each other may both be im-
 portant enough to form an object for the enemy, and both equally urgent
 in demanding protection. Thus when Sherman, advancing from Savannah
 in 1865, was concentrated behind the Combahee, he threatened equally
 Augusta and Charleston; and by separating, to defend both, the Con-

Causes of
 this.

federates laid themselves open to a sudden blow dealt against a part of their front. The part to be taken by an army so threatened can scarcely ever be doubtful. It should adopt one point decisively, as its temporary base, and from thence, indirectly, cover the other. Thus the Confederates, if assembled in the fork of the Combahee and its tributary, and based on Augusta by the road through Barnwell, would have been prepared against a direct attack, and the enemy could neither have moved on Augusta or on Charleston without exposing a flank.



Decisive
points.

In fact, what has been called "the principle of interior lines," as well as many instances of what are termed "decisive points," are simply a concurrence of circumstances which render it practicable to concentrate an army in opposition to an extended enemy. When an army approaches its object by roads which meet and then again divide, the possession of the point of junction or knot of the roads, by either party, cannot but afford opportunities of menacing at once several points, or roads, which the enemy may desire to cover. The possession of points of this kind—for example, Milan and Mortara in 1849, Gera in 1806, Ivrea in 1800, Charleroi, Quatre Bras, Sombref, in 1815—is of itself an important step in the campaign.

An instance of the great advantage of *possessing several alternatives of action*—distinct from other cases already quoted, because that advantage was used by an army *on the defensive*—is afforded by the military situation in Portugal in 1810-11.

See Map
No. 13.

Massena, recoiling from the lines of Torres Vedras, had fallen back to

Santarem. Wellington, following by the roads east of the Monte Junto, found him in a position of great natural strength. Reynier's corps about Santarem was posted on a lofty ridge, its left resting on the Tagus, its front covered by the swamps of the Rio Mayor, and accessible only by a long narrow causeway. Junot's corps was posted on the Alviella from Alcanhete to Pernes and Torres Novas. Ney's corps was in reserve at Thomar, with a division watching the Tagus between Santarem and the Zezere. The French held two bridges over the Zezere. A detachment with cavalry was at Leiria.

The alternatives open to Massena were these:—

1st, He might retreat, either by Leiria or Thomar, to Coimbra, finding a fertile country and strong line of defence on the Mondego.

2nd, Crossing the Zezere, he might retreat by Belmonte to his fortresses of Almeida and Ciudad Rodrigo.

3rd, He might reach the same fortresses by Castello Branco.

These were alternatives for retreat; but he might also take the offensive.

4th, By advancing from Leiria against the western half of the lines of Torres Vedras.

5th, Crossing the Tagus on his left, for which he possessed numerous boats, he might advance on Lisbon by the south bank.

6th, From Castello Branco he could concert operations with Soult in Andalucia, by Alcantara.

7th, Or, by Placentia, with King Joseph, whose army was on the Upper Tagus.

Wellington had 70,000 men against Massena's 50,000. Could he have collected these, he might have attacked Junot, routed him and Ney, and hemmed back Reynier against the Tagus. But he was forced to disperse his forces:—

1st, To watch the south bank of the Tagus and cover his depots opposite Lisbon, and the transports in the river.

2nd, To occupy in sufficient force (two divisions) the western half of the lines of Torres Vedras; for Massena, by a march from Leiria, would be within a march of the lines there, and might force and turn them before Wellington could arrive by the eastern side of Monte Junto.

3rd, While attacking Junot and Ney, Wellington must leave a force

before Santarem, lest Reynier should advance on the eastern half of the lines.

These diminutions of the force available for attack on an enemy who could speedily concentrate, prevented the enterprise; and Massena, though so inferior in force, maintained his position from November to the following March; and, when he did at last withdraw, gained sufficient start, from the uncertainty in which he kept his antagonist, to effect an organised retreat through a very difficult country.

Such advantages, then, are frequently open both to the general invading and the general defending a country; to recognise and to hold positions so commanding, will often compensate for a numerical inferiority.

Since all strategical successes resolve themselves into the two kinds discussed in this and the preceding Part, it remains to inquire under what circumstances it may be well to choose one mode of operating rather than the other.

Comparison
of the advan-
tages

of turning
the flank

Whenever an army, which is so confident in its fighting power as to desire to engage the entire concentrated forces of the enemy, possesses the faculty (by reason either of an angular base, or of such circumstances of obstacles as will hereafter be discussed) of striking at its adversary's flank or rear, it enjoys, in that circumstance, an advantage and opportunity which it might vainly seek in manœuvres against the hostile front. By a resolute advance it may even combine the different advantages of forcing the enemy to form front to a flank, and of separating his forces and engaging the parts successively, as will subsequently be seen in the example of Champaubert. At any rate, it will be highly advantageous to engage even his whole force in that situation.

But if an army be inferior in number, it will manifestly be wiser to seek to separate the hostile forces and engage them separately. For in striking at the flank it may compel that concentration which it should be its great aim to prevent; as Napoleon would have done, had he turned Wellington's right in Belgium.

and breaking
the front.

And even if, in the case of an army ready under any circumstances to bring the enemy to action, the option is offered of breaking his front or striking at his flank, the first alternative will generally be the best. Such a choice appears to have been offered to Napoleon in 1809. On the 17th April, when forming his plan, he might have left Davout at Ratisbon

and have marched with his centre by Neustadt to combine with Massena coming from Pfaffenhofen, in order to advance together through Mainburg. He would thus have been on the flank and rear of the Austrian left wing, cutting it from its great line of supply by Landshut. But he would thereby have compelled the concentration of the Austrians. Therefore, though his own line to France would have been equally secure through Ulm in this flanking operation, he preferred to break in between the wings, even with all the risk of Davout's perilous flank-march along the river. And as in this case, so in most others, it will be found that to break the front is the readiest method as well as the most decisive.

The latter
generally
best.

When the superiority of one army is sufficient, and no more than sufficient, to warrant a detachment against the enemy's rear, the two modes of operation—namely, that of aiming a blow at the communications on the one side, and that of concentrating against a separated force on the other—come into direct opposition; when victory will remain with the general who best appreciates and improves the conditions of the situation.

This seems a suitable part of the work in which to consider the effect that the Electric Telegraph, whether of the ordinary kind or specially constructed to accompany an army, may be expected to exercise on military operations. So long as opposing armies are concentrated, its influence will be confined chiefly to transmitting immediate intelligence and directions between the headquarters and the communications with the rear, or between the general-in-chief and the commanders of wings, and both parties may be expected to derive from it the same advantages. It is when armies are in presence of each other *on extended fronts* that instant intelligence may affect the result, and chiefly in those cases where concerted action is essential to success, but is rendered uncertain by intervening distance or obstacles.

Effect of the
telegraph on
military
operations.

The ordinary field telegraph equipment consists of "cable" and "air-line," either of which can be connected with existing permanent telegraph lines at any point. The "cable" is an insulated conducting wire enclosed in a waterproof casing. It is carried wound on drums mounted on waggons or small hand-carts, and can be unrolled as the

Mode of using
the field
telegraph.

vehicle that bears it moves along. It lies along the ground, and can be laid at 6 miles an hour, or less, the rate depending on the ground the vehicle carrying it has to move over. The "air-line" consists of a wire on light poles, and can be erected at about 1 mile an hour. In the British service, as at present organised (1906), a "telegraph company" accompanying an army corps is equipped with 48 miles of cable, 60 miles of air-line, and instruments for 20 offices.

Since a direct line of communication along the front of an army would be constantly exposed to the incursions of the enemy, the telegraph lines between the parts will have some common centre in rear of the whole. When, therefore, a successful descent is made on the enemy's rear, as at Marengo and Ulm, the telegraphic communications may be entirely severed; and the fact that they may thus be lost to one army, while preserved by the other, must be added to the disadvantages already enumerated in the chapter where the condition of an intercepted army was discussed. The introduction of wireless telegraphy has, however, provided a possible means of communication which is little liable to interruption. Portable plant for its installation, under the conditions of field service, has been designed, and although it cannot as yet be utilised over great distances, or put into use without some delay, there will, doubtless, be great developments in these respects.

Field tele-
phones.

Field telephones were much used in the recent war in Manchuria for connecting bodies of troops in action. A consideration of their uses, however, is more appropriate to tactical than to strategical conditions.¹

Visual
signalling.

Visual signalling, under favourable conditions, constitutes a valuable auxiliary to the field telegraphs. In a clear atmosphere the heliograph by day, and powerful lamps by night, can flash messages over considerable distances at the rate of about 8 words a minute, and these means of transmission have been of very great service to us in our campaigns on the Indian Frontier and in South Africa. Flag signalling is also very useful over short distances.

¹ The new scheme of organisation for the British army (January 1907) provides a considerable increase in the amount of telegraph equipment accompanying an army in the field. Each division (3 brigades) is to have one telegraph company, and, in addition, there will be 2 "cable" companies, 2 "wireless" companies, and 2 "air-line" companies with an army, besides special companies for the line of communications. Brigades of infantry and artillery will have special telephone equipments for keeping up internal communication.

When armies are manœuvring on any other than concentrated fronts, the telegraph may exercise influence in two ways:—

1st, It will enable the general to combine in one view intelligence of what is simultaneously taking place in distant parts of his front. The conclusions he will form of how far his own plan is likely to be accomplished, and of what the enemy is seeking to effect, will thus be more likely to be correct than if he received, at intervals, information of a state of affairs which may already, when he learns it, have ceased to exist, or be beyond his power to control. Thus the Austrian official account of the campaign of 1866 states that the following telegram came to Benedek's headquarters, from Josephstadt, about half-past eleven on the 3rd July:—

Kinds of
influence
exercised by
the telegraph.

“The 5th Prussian corps appears to be advancing from Gradnitz by Salnei against the right flank of our army. Large columns are passing, some within range of the guns of the fortress, which are firing on them with effect. A patrol of Palffy Hussars has been forced to seek shelter here.”

Ample warning was thus given, though not turned to account, of the impending fatal onset of the Crown Prince on the right flank of the Austrians.

2ndly, It enables the general to transmit orders for simultaneous action to distant parts of his force, and to impart to the movements of an army on an extended front the decisive and co-operative character of those which are performed under his immediate control.

In the case of an army spread on an extensive front to meet an expected invasion, the advantages which railways have been said to confer on the defender will probably be increased by the conjunction of railways and telegraphs. The assailant's advantage has been explained to consist in knowing what his own point of concentration and his own line of operation will be; while the defender, doubtful of these, may be unable at once to meet the attack, or, if it is rapidly followed up, to combine his forces effectually after its direction is apparent. But the advantages which the defender will gain in breaking the railways he abandons, and using for concentration those that connect the parts of his army, will be augmented by the possession of telegraphs, which will enable him more speedily to remedy the effects of his first doubts

Influence of
telegraphs on
defensive
measures.

and hesitations. Wellington and Blucher, in constant communication by telegraph through Brussels, though they might have failed to combine effectually on the front Namur-Nivelles, would have moved with far more assured steps to unite at Waterloo. This disadvantage the assailant may, in future wars, seek to remedy by detaching bodies of cavalry on enterprises against the defender's communications.

Influence of
telegraphs on
offensive
operations.

One of the disadvantages of a general who conducts offensive operations on an extended front is the difficulty of imparting unity, both of time and object, to his movements; and this will in future be diminished. The telegraphic communication between the two Prussian armies invading Bohemia in 1866 was not maintained up to the battle of Königgrätz; had it been, and had the situation on both sides been fully appreciated, their joint attack might have been so timed as to obviate the risk of separate defeat which the premature onset of Prince Frederick Charles's army entailed. And in the similar case of allied armies operating from divergent bases, like the English and Prussians in the Waterloo campaign, the chances that they will be able to combine for the blow, which has been said in those circumstances to be so decisive, will be greatly increased.

Lastly, in the case of attempting to dislodge an enemy by sending a detachment round his rear, the telegraph will both diminish the risk of the movement and increase the chances of gaining its complete results. Sherman appears to have made constant use of it in his flanking operations in Georgia.

One important effect will be felt, on both sides, in the avoidance of hypothetical or conditional orders (always fruitful sources of error), and the correction of those which are misunderstood or fail of being obeyed with sufficient exactness. Had telegraphs existed in 1815, D'Erlon could scarcely have been suffered to remain lost both to Ney and Napoleon, and Bulow's error in delaying to march for Ligny would certainly have been rectified.

On the whole, it appears that telegraphs will diminish, sometimes in a considerable degree, the disadvantage under which a divided force operates against a concentrated force, and that they will enable a general to divide his army, whether for defence or attack, with more confidence than

heretofore.¹ But they will not often remedy, in an appreciable degree, the ignorance of what is passing behind an enemy's front, and its consequences. False theories of his intentions will still be formed, and the false movements that spring from them will often be beyond remedy. The errors which led Wellington to expect Napoleon's attack in a different quarter, and to keep a detachment at Hal, and which caused Napoleon *minus* Grouchy to meet the combined armies of his foes, were such as the telegraph would have failed to avert. Generals will know more of what is passing in view of all parts of their front, but not necessarily of what takes place beyond. There is, however, this to be said, that information gained at a great distance from the theatre of operations may now reach a general, by telegraph, in time to be of use to him. Thus information of MacMahon's movements on Metz, in August 1870, reached Moltke *via* London in time to enable him to intercept the French at Sedan.

The reader can proceed to apply to any of the situations described in this work the supposition of the joint effects of railways and telegraphs. The instances will not be found to be numerous where the advantages thus conferred on one side are obvious and important; and there will still be abundant room in all cases for the effectual exercise of sagacity and decision.

¹ A recent work, 'The Development of Strategical Science,' by Lieut.-General von Caemmerer of the German Army, discusses this point, and strongly urges the advantages resulting from forces converging on a battlefield from different directions, which proved so effective at Waterloo and at Königgrätz. It must, however, be remembered that a principle which may be sound for a nation which can calculate on being able to take the field with a considerable numerical superiority may not be equally applicable to one that cannot hope to do so. If General von Caemmerer's weighty arguments are accepted, they afford a strong proof of the correctness of the views expressed in this work (Part I. chapter v.) as to the danger of the theory that great numbers may be a disadvantage.

PART V.

THE INFLUENCE OF OBSTACLES.

CHAPTER I.

GENERAL TOPOGRAPHY OF A THEATRE OF WAR.

THE first requisite for following military operations is a good map of the theatre. It is not often easy to find one that is at once minute in necessary particulars, and compendious enough to bring the essential features before us at one view. But any good map, however general (sometimes, indeed, the better for being general, as giving the main facts unconfused by secondary particulars), will afford a great deal of important information.

Reading of
the map.

Features of
Italy.

For example, North Italy is seen at once to be a basin almost entirely surrounded by mountains. From these great watersheds a multitude of streams pour down to the plain, along the central depression of which the great main drain of the Po, collecting them in its channel, conducts their waters to the sea.

Therefore belligerents operating from the east and west, like Austria and France, will find their paths crossed by a multitude of streams running north and south, while a great river traverses the theatre from west to east. North of the Po the mountains leave a wide plain traversed by

many great roads; but south of it the Apennines crowd upon the river, leaving space only for a single great road, which lies in a narrow defile between Piacenza and Voghera. On the seaboard are Genoa, which was the chief base of the French in 1859—a great port, opposite a gap in the mountain-barrier, and giving access to the valley of the Po; and Venice, where the presence of a hostile force would seriously affect the position of an Austrian army on the Mincio—an element which proved to be of great importance in the negotiations of Villafranca.

In Spain we see a theatre the very reverse of North Italy in its essential features: for here the land rises from the coast towards the centre, and the line of the watershed traverses the country from the south-west in Andalusia to the north, where it merges in the western extremity of the Pyrenees. From this spinal ridge, ribs of mountain-ranges extend east and west—between these run the great streams thrown off by the watershed, mostly to the westward. Features of Spain.

A French army entering Spain would therefore find its path crossed by barriers of mountains and rivers—which, when mastered, would become successive lines of defence against an enemy coming from the south. But they would form obstacles of a different character if an enemy should operate from Portugal, in the direction of their length; and this was a mainly important feature in the Peninsular war.

In the theatre of war in America, the great feature was the line of the Alleghanies intersecting the Southern States, and pouring its streams right and left into the Atlantic and the Mississippi. Thus the rivers crossed the path of a Federal army operating from the Potomac in Eastern Virginia, and the mountains lay on its flank—circumstances the significance of which was exemplified at Bull Run. Of America.

If we know, then, the precise nature of the difficulties offered by rivers or mountain-barriers, both when parallel and when perpendicular to the fronts of armies, even this cursory survey of a theatre will supply much matter for consideration respecting the chances of a campaign. The influence of these obstacles, under different conditions, will therefore form the chief subject of subsequent chapters. Nature of obstacles must be appreciated.

More detailed maps and topographical descriptions will afford other important particulars. Respecting North Italy we shall learn from these what are the passes of the mountains into the country—what fortresses

guard them—what are the great roads and railways, and where they cross the principal rivers; that is, in fact, *the relations between the avenues and the obstacles of the theatre of war.*

As to Spain, we shall find that the Pyrenees form a barrier between it and France, forbidding the supply of great armies, except by roads which lie between the extremities of the mountains, and the coast on each side; that the great rivers, far from marking the lines of the great roads (which in other countries so frequently lie along the banks), flow in broken rocky channels difficult of access; that the cultivated districts are few and small compared with the extent of the country; that the frontier of Portugal is so rigid as to admit of only two roads by which Lisbon can be reached from Madrid: and we shall then comprehend the situation of the French armies in Spain, how dependent they were on the one great road on each side of the Pyrenees, how disjointed was their front when it faced towards Portugal, how difficult it was to subsist on the resources of the country, and how perilous to draw together the scattered parts of the army, separated by rugged defiles which were held by guerillas. We see also the importance of the fortresses of Badajos and Ciudad Rodrigo, the doors between Spain and Portugal, and Burgos, on the main line back to France. To see and provide for such circumstances imparts vigour and unity of action to a campaign—not to see and provide for them is to carry on war by compromises and makeshifts, and to end it in disaster.

Effects of
cultivation
on military
operations.

In England the country is so generally cultivated, and the arable and pasture lands are so intermixed, that the fields are fenced on every side to keep the cattle from the crops; and it would be difficult to find spaces of any extent where armies would not be restricted to the road while marching, or where they could easily form front for battle. But in large districts of the Continent cattle are kept in stalls, and the crops are not separated by fences, while the chief causeways are thrice the width of our main roads. In such countries armies move on a large front, the columns of infantry and cavalry in the fields in dry weather, the artillery and trains on the roads. Thus Belgium and the east of France are a succession of rolling plains, where the streams and ditches are the only impediments. In other parts of Europe whole districts are devoted to pasture, as in Hungary and parts of Spain, and these great plains are equally free from obstacles. On the other hand, North Italy is highly cultivated, and

scarcely any plains are to be found there. The numerous rivers feed a multitude of canals of irrigation ; the rich soil of the fields is too soft for marching on ; olive-groves and festoons of vines add to the difficulties of forming on a large front, and troops on the march are for the most part restricted to the raised roads.

It is evident that a careful and sagacious reading of the map of the theatre will reveal to a great extent the character of the warfare of which it is to be the scene. Not only may a general plan be resolved on, but the nature of the marches and of the encounters may be foreseen and provided for, and the proportion of the different arms will be adjusted to the country in which they are destined to act. The cavalry, that would have been only an encumbrance in the Apennines or at Rivoli, found fitting fields at Eckmuhl, Borodino, and Ligny. The powerful artillery that was easily transported and manœuvred in Belgium, and which almost crushed the British at Waterloo, would have choked the narrow roads of Spain. Not only the army, but the character and extent of its supplies and equipments, must depend in great degree on the aspect of the country, its resources, fertility, and climate. These are matters to be dealt with by common-sense, joined to experience of the requirements of armies. But without going into minute details of topography and statistics, the map of the theatre will suggest military problems of a purely scientific kind, first in order among which are those discussed in the following chapter.

Importance of preliminary study of the map.

CHAPTER II.

EFFECT OF THE CONFIGURATION OF BASES AND FRONTIERS.

See Maps
No. 3 and
No. 8.

Extent of the
influence of
an angular
frontier.

THE effect of an angular frontier in enabling the army possessing it to operate against the enemy's flank was exemplified in Part III., Chapter V. But the reader may have observed subsequently, in the American campaigns, that the line of the Potomac, and the seaboard, gave the Federals the power of moving an army into Virginia in many different directions, conferring, indeed, greater latitude than Moreau possessed in 1800, but without producing any of the results which follow from obliging an enemy to form front to a flank. He may therefore be disposed to inquire why none of the Federal invasions, directed from various parts of their frontier, had the same effect as Moreau's. By investigating the difference between the two cases, the limit of the influence of a frontier of this kind may be determined.

That difference consists in the fact that, whereas the base of the Austrians lay considerably *beyond* the angle from the side of which Moreau operated, the base of the Confederates on the James lay entirely *within* the angle commanded by the Federals. Had some central point in the Black Forest, such as Rothweil, been Kray's base, Moreau's advance from Schaffhausen would have been of no more avail, as a menace to the communications, than if he had advanced from Strasburg. On the other hand, had the Confederates been bound to some points far south of Richmond—such as Augusta—a Federal advance on the line of the James would have forced the enemy either to abandon all that part of the theatre which lies north of the James, or else to give battle on a front parallel to their line of communication with the base. The truth of this was exemplified when

Lee abandoned Richmond. For his aim then was to join Johnston in Carolina; but Grant, advancing along the James, cut him from the south, hemmed him against the mountains, and compelled him to surrender.

Again, when Kray had reached Ulm, Moreau's line from Schaffhausen no longer gave him the power of threatening the Austrian communications, except by the exposure of his own; and that he succeeded in his enterprise against them was due to causes of a different nature.

Therefore we may infer that, if an enemy's base lies within the angle of a frontier, the only advantage which that angular frontier confers on its possessor is to afford a choice of lines by which to operate. Should he advance from several points too distant from each other for perfect concert, he will do so at all the risk which attends a disjointed, as opposed to a coherent, operation. Should he advance from a single point, he will find that the opposing army's front covers its line to its base.

On the other hand, if the hostile base lies far beyond the angle, this kind of frontier will confer all the advantage of forcing the enemy to form front to a flank, *so long as his army is within the angle*. But as soon as he has retreated beyond the extremity of the angular frontier the advantage ceases, or exists only in proportion to the degree of obliquity which the front of each army assumes in relation to its own line of communication.

When a maritime power which commands the sea makes war in a theatre largely bounded by a coast-frontier, it evidently possesses great advantages for the selection of a base; and if the frontier, besides being extensive, be angular, it will almost certainly confer the power of operating against a flank. Thus, when England made war against the French in Spain, the form of the Peninsula gave her the choice of numerous lines by which to operate. It remained to select the most effective.

Advantage of commanding an enemy's coasts.

Example of the Peninsula.

The Pyrenees, affording no great roads, restricted the French to the lines of communication between the mountains and the coast on each side. The main line was that of Bayonne-Vittoria-Burgos-Valladolid-Madrid-Seville. A British army, operating, let us say, from Gibraltar, would merely press back the French along their road to France. But it might easily select another base from which it could force the enemy to form to a flank. By seizing the road from Bayonne, where it passes between the coast and the Pyrenees, it would grasp the throat of the invasion; and the nearer to that point it could operate, the more

See Map No. 11.

effective would be the operation. Thus Sir John Moore, advancing from the north-eastern frontier of Portugal in 1808, struck at Napoleon's communications between the Ebro and the Douro. The movement forced the Emperor to quit the capital; he advanced with greatly superior forces, by the Guadarama, against Moore, who thereupon retreated, not on Portugal, which he could no longer calculate on being permitted to reach, but on the north-west corner of the Peninsula at Corunna. On that corner, then, his operation was based. But he wanted two conditions for success: first, *a secure starting-point*, which that part of the coast did not afford—hence, under great difficulties, he was forced to re-embark; secondly, *a force sufficient to contend with the enemy whom he menaced*—of the indispensability of which condition this case has already been quoted as an example.

As the only fortified posts on the northern coasts were occupied by the French, it remained for Wellington, in subsequent campaigns, to choose another base. Portugal offered one admirably suited to the purpose. It was guarded by a frontier naturally strong; for on the east was a range of mountains, on the north the river Minho and an impracticable hill-country; and it possessed, besides the great harbour of Lisbon, three rivers navigable for a considerable distance in Portugal—namely, the Douro, the Mondego, and the Tagus—by which to supply the army. And whenever Wellington should advance into Spain, the French armies opposing him must necessarily form front to a flank. Hence they were obliged to appropriate an army, called the Army of Portugal, expressly to cover their line from an attack on that side.

In 1812 Wellington advanced against that army, then commanded by Marmont. At that time another French force (Army of the Centre) held Madrid; a third, under Soult, was in Andalucia. The English general defeated Marmont, drove the French eastward from Madrid, and seized the capital. Soult was thus cut off; but, by a long circuit, he regained his communications with the Army of the Centre, and, in conjunction with the defeated army of Marmont, compelled Wellington to retire to Portugal. The substantial result to the English was the liberation of the whole of Spain south of Madrid.

In 1813 Wellington again advanced, and drove the French from the Douro towards the Ebro. But his line back to Portugal was now very

long, and the French, by withdrawing beyond its effective direction, had deprived him of the advantage of attacking their flank. On the other hand, their retreat, compromising the garrisons of the northern coast at Santander, &c., had left the ports there free. Therefore Wellington, letting go his hold of Portugal, threw his left forward beyond the sources of the Ebro, and basing himself anew on the northern coast, whither his fleet from the Tagus was transferred, came down upon the flank of the French line between the Ebro and Bayonne. To meet the attack, the enemy at Vittoria gave battle on a front in part parallel to that line,—defeated, they only regained the Pyrenees by the road of Pampeluna, with the loss of all their artillery and baggage.

Thus the chances which the configuration of a base may open, in all stages of a campaign, afford most important matter for the consideration of a government and a general.

When armies are in presence of each other at the outset, their frontier lines will be coincident; and thus the angular frontier of one party will be an angular frontier of another kind for the other—that is to say, whereas the angle of the one frontier includes the territory occupied by the enemy, which, borrowing a term from fortification, may be called a *Re-entering Angle*, the other army is operating in an angle which pushes itself within the enemy's frontier, and may be called a *Salient Angle*. Let us consider the effects of these positions respectively.

The late Austrian frontier in Italy was bounded by the Mincio throughout the length of that river, and by the Po downwards from their confluence. If Austria were at war with Italy, the Italians, on the one side, would enclose Venetia within their re-entering frontier. On the other, the Austrians would be in a salient angle. And it is evident that if they were concentrated between the Mincio and the Adige, they would threaten Italy south of the Po on the one side, or Lombardy on the other, and be within striking distance of both; so that, should the Italian army concentrate on one side of the angle, the enemy might invade its territory on the other. Thus, supposing the Austrians capable of crossing either the Po or the Mincio at pleasure, the Italians, if they wished to cover all their territory, must divide. But, by dividing, they would be giving the Austrians all the advantage of a concentrated against a separated force; and if the armies at the outset were equal, the parts

Different
kinds of angu-
lar frontiers
considered.

of the one would be liable to be defeated successively by the mass of the other.

Thus, while the advantages of a re-entering frontier are of the kind discussed in Part III., inasmuch as it favours an operation against a flank, those of the salient are of the kind discussed in Part IV., because it tends to separate the parts of the enemy's front.

But to end after saying so much would be to leave this question of frontiers in a very unsatisfactory state, and the case must be further investigated.

Importance
of possessing
the issues.

It is evident that, for the one party or the other to derive the kind of advantage peculiar to its position in its full extent, it must possess the means of passing the frontier on both sides of the angle. Now the Austrians¹ had two fortresses on the Mincio, Peschiera and Mantua, giving them access to Lombardy, and excluding the Italians from Venetia. But the Po is not bridged below the confluence of the Mincio, nor could a bridge easily be thrown; therefore the Italian army might safely assemble in Lombardy to await the attack, assured of being able to arrive on the lower Po in time to confront the enemy, should he attempt to pass there. But if the Austrians had possessed a great flotilla, or flying bridges, on the lower Po, by which to throw their army easily across, the Italians would have been at a great disadvantage.

On the other hand, reverting to the case of Kray and Moreau, the French could pass the Rhine at Strasburg and Brisach at one side of the angle, and above Basle on the other—Kray was therefore reduced to the defensive, since he could not cross either side of the enemy's frontier without exposing his flank to the other; and when the passage of Schaffhausen was seized, the situation was altogether against him.

Thus we find that another element is necessary for the decision of the question—namely, *Which party possesses the issues of the frontier, or can most readily seize them?* After ascertaining this, we can proceed with some confidence to decide on the best plan of operation.

If the army whose frontier is re-entering possesses, or can seize, the issues of that side of the frontier which is parallel to the enemy's line of communication with his base, it should throw all its weight on that side

¹ The passages referring to the period when Austria held Venetia are retained because the great territorial changes of 1866 do not render them the less apt as examples.

in assuming the offensive ; for even if the issues on the other side of the angle are open to the enemy, he cannot advance by them while his communications are thus threatened.

For example, in the second part of the campaign of 1796 in Italy, the Austrian army was on the defensive, behind the angle of the Po opposite Valenza, with its left towards Piacenza. Napoleon, whose object was to drive them from the Milanese, could cross at Casale, and advance by the Sesia on the one side of the angle, or could strike at the Austrian communications by crossing the Po below the Ticino, on the other. Though in following this latter course he was operating on a front parallel to his own line of communication with France, which was through Turin, yet, remembering that the successful assumption of the offensive would secure him against counter-attack, he moved down the Po beyond the Austrian front, and crossed at Piacenza, whereupon the Austrians in all haste retreated over the Adda. See Map No. 5.

In 1859 the situation was the same. The Austrians, as before, were in the angle of the Po, extending towards Piacenza ; the Sardinians were on the lower Sesia ; the French faced the Austrians on the Po from Valenza to Voghera. But the issues of the Po below Valenza were in the hands of the Austrians ; therefore the Allied army chose to operate by the other side of the angle, and, crossing at Casale, advanced by the Sesia and Ticino. Thus no strategical advantage was gained. The Austrians changed front, covering their line to the Mincio, and their retreat was caused by the *tactical* success gained at Magenta.

The question, then, of *who holds the issues* over the obstacles, is of paramount importance. The angular frontier may be a line of mountains like that of Bohemia, or a river having a bend like the Rhine at Basle, or two rivers like the Ticino and Po, or a line of fortresses on one or both sides. In any case, what we mean by holding the issues is, possessing the means of certainly and securely passing the obstacle, either by fortified bridges, or fortresses or detachments commanding the passes of mountains.

For the sake of clearness of illustration, let us take, in preference to a mere diagram, the case of the Austrian frontier in Italy as it was in 1849 and 1859—that is, the line of the Ticino and Po. The Italian army would have a re-entering angle, the Austrian a salient angle, from which to operate.

The example of 1796 proves, that if the Italian army can cross at Piacenza the move is decisive. If, therefore, Italy possessed a fortress on the north bank of the Po, opposite Piacenza, it would be impossible for Austria, with equal forces, to keep her frontier on the Ticino.

And if the issues over the Ticino were in the power of the Austrians, still the result would be the same.

And if the issues were not protected by fortifications on either side, but open to either party that could seize them, the successful assumption of the offensive by the Italians on the side of Piacenza would be decisive.

But in all these cases it is presumed that the Austrians await the attack. Therefore, in addition to the power of holding or gaining the issues, *the assumption of the offensive* is necessary to secure the advantage of the re-entering frontier.

On the Austrian side, the disadvantage of a purely defensive attitude being apparent, whatever advantage the salient can confer must also depend on the assumption of the offensive.

The danger of dividing an army to cover territory defensively on both sides of the angle, is exemplified by the distribution of Chzarnowsky's force in 1849. One of his brigades was posted towards Piacenza to guard against the passage of the Po. On the advance of the Austrians across the Ticino this brigade was beyond the possibility of aiding Chzarnowsky, and was lost to him.—(Part III. Chap. II.)

Supposing the Austrians to possess the same frontier, with the power of passing the Ticino at Pavia and the Po at Piacenza, they would threaten Turin on the one side, and the Duchies and the Peninsula on the other. The separation of the Italian army in such a case, or the abandonment of one-half of the territory and resources of the kingdom to the enemy, would seem almost inevitable. The best course in such a case would be for the Italians to take up a position near the angle, at Casale and Valenza, or Mortara and La Stella, when they would threaten the flank of the enemy's advance on either line; and the power of the Austrians to persist in an offensive movement must depend on their ability, either to defeat the Italians in battle; or to guard their own flank at Piacenza on the one side, or opposite to Casale on the other.

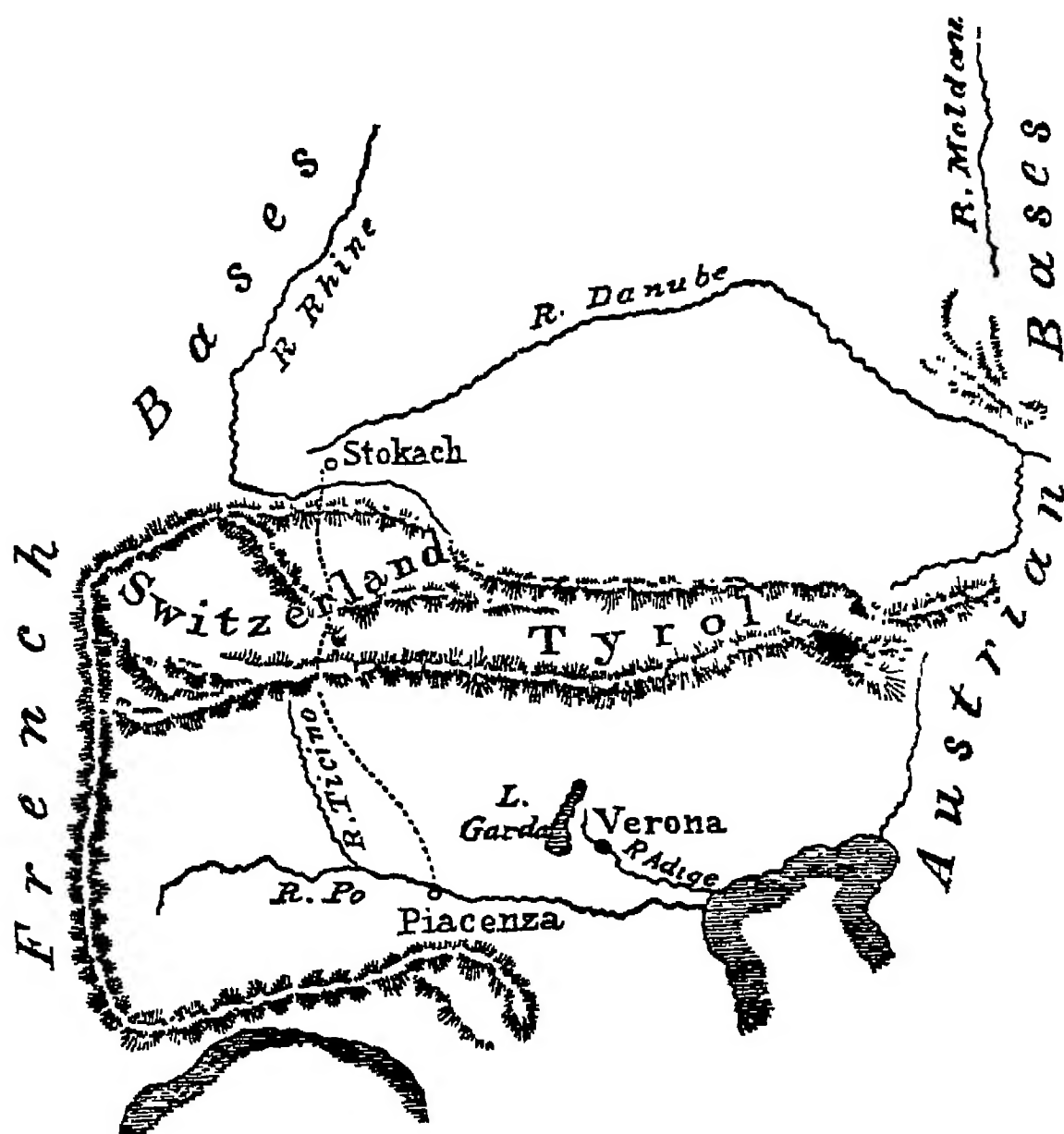
In 1866 the Austrians, within the angle of the Bohemian frontier, were expected to assume the offensive (the issues being open to either side),

and the Prussians armies divided, covering Berlin and Silesia. But the Prussians seized the initiative and advanced simultaneously from both sides into northern Bohemia, the action of the divided armies being combined by means of the telegraph which connected them with each other and with the supreme commander. The measures taken, too late, by Benedek (the Austrian commander) proved inadequate to prevent the junction of the Prussian armies, and, to secure his line of retreat, he was compelled to fall back and concentrate before Koniggrätz.

See woodcut,
Chap IV.
Pt. V.

See woodcut,
Chap IV.
Pt. V.

Generally then, and on the whole, the advantages of either position are conditional on the assumption of the offensive: the chances will be against either party that suffers the other to take the initiative: and the advantages will be greatest on the side of the army operating from the salient, provided the enemy be obliged to separate, under penalty of abandoning territory; otherwise the salient will confer no strategical advantage, unless circumstances are very favourable to the defence of the flank of the army during an offensive movement.



It may happen that the frontier line abuts into the territory occupied by the enemy from the *middle* of a base—thus giving a re-entering angle

Case of a
double re-

entering
angle.

on two sides. For instance, the mountains of Switzerland and the Tyrol connect transversely the bases of Austrian and French armies in the two theatres of Germany and Italy. The advantage of the possession of Switzerland by the French, against the Austrian armies within the angle on both sides, was fully exemplified in 1800, when Moreau from Schaffhausen first drove back Kray, and then detached a force over the St Gothard to turn the line of the Ticino and aid Napoleon in enveloping Melas at Marengo. And if an enemy, pushing the Austrians back in Italy, should penetrate into the territory beyond the Adige, the Tyrol would afford them the means of issuing by way of Verona on that adversary's flank and rear, and hemming him back against the shores of the Adriatic. Such a frontier confers the double advantage of concentrating against a divided enemy, and of obliging him to form front to a flank. This case has been quoted by Jomini as an example of a *salient* base,—the reader must judge whether it does not more correctly belong to the class in which it is placed here. The configuration is manifestly widely different from that of the salient Austrian frontiers in Bohemia and Italy, and the advantages to be aimed at are different also.

Importance
of an exten-
sive base.

The lateral extent of a base, without reference to its configuration, is also an important matter. It affects the army that operates from it very considerably, whether the operation be offensive or defensive. For a very long base evidently supplies in some degree the place of a re-entering base. If an Austrian army were on the Neckar, a French army might move on its rear almost as easily from Mayence as from Wurzburg. And if this Austrian army were dependent on a very short base, it would be easily cut from it. But how difficult it was to cut it from its very long base, was shown by the perilous dispositions to which Napoleon was obliged to resort for the interception of Mack. And, indeed, the whole of the campaigns quoted, on the Danube, prove how great an advantage was the extent of the bases to their possessors.

In the American war, the extent of the Federal base gave the Northern armies a great advantage. Not only had they a variety of line of invasion to select from, but when defeated in Virginia, it was almost hopeless to attempt to intercept them. In 1862, Jackson's bold flanking movement cut Pope from the Upper Potomac, but could not prevent him from reaching Alexandria—and, if cut from Alexandria, he could still have

retreated on Acquia and the flotilla. And in 1864, when Grant was baffled on the line of the Rapidan, he shifted his base, as he moved round Lee's right, successively to the Pamunkey, and to the James.¹

The extent of a base is, then, a very important consideration in deliberating on the expediency of adopting it; and the advantages it offers must be very marked in order to compensate for dependence on a single harbour, or narrow strip of frontier, where the army will be restricted to a single line, and that line precarious in proportion to its length.

Therefore, when a maritime power is based at first on a single harbour, as soon as its army, in advancing, masters a road which branches to another harbour distant from the first, that second harbour should be occupied and made part of the base.

And in all cases the depots should extend behind the flanks of the army as widely as is consistent with their due protection by natural obstacles, by fortresses, or by the front of the army.

¹ Grant's campaign against Lee in 1864 is a very striking example of the advantages conferred by command of the sea. It was this which enabled him to turn Lee's right, repeatedly, without exposing his own communications.

CHAPTER III.

OF OBSTACLES WHICH DIRECTLY TRAVERSE THE PATH BY
WHICH AN ARMY ADVANCES.

Conditions
of a military
obstacle.

AN obstacle—in order to be such in a military sense—must present advantages for defence, and must also prevent the approaching columns from deploying while passing it. A single defile of any kind, a causeway on a swamp, or a bridge, leading to commanding ground, or a mountain-pass, fulfils these conditions. For an enemy must advance on a narrow front against troops and artillery advantageously posted, and, in the two first cases, deployed. In the case of a mountain-pass the defenders may not be able to deploy any more than the assailants, and their advantage will consist in being screened from the fire from below ; while the advancing troops, besides being imperfectly covered, will, even should they arrive at the crest, be greatly fatigued and scattered by the difficulties of the ascent.

But the disadvantage, in such cases, is obvious ; and the assailant will at once decide whether to attack or turn the position. It is when the obstacle is to a certain extent *continuous, and includes in its range several possibilities of action*, that it presents a strategical problem. The only natural impediments that fulfil this as well as the former conditions, are Rivers and Ranges of Mountains.

Its effect in
limiting the
number of
roads.

In one respect the influence of both these obstacles is the same in kind though not in degree. The expense of throwing bridges over a wide stream, or of making roads over a high range of hills, causes the roads on each side to converge as they approach it, and to merge in a

few highways, by which alone can the communications of a great army be maintained. One of their effects, then, is to lessen the number of avenues through a theatre of war. But in many other respects they differ.

Although the supply of a large army, operating beyond a mountain-range, can only be maintained by the highroads that cross the range, yet in all mountain districts there are numerous paths by which troops unattended by cumbrous trains, and carrying supplies for a few days on the men's persons and on pack animals, can pass over the crests. But if the defensive army should spread itself to occupy all of these, the communications between the parts of its front must be broken and circuitous. An assailant mastering any of the passes would descend in the rear of the defenders of other points, who, necessarily very sensitive about their communications, could never hold their ground with confidence. Moreover, an army spread in this way, in barren roadless districts, on inhospitable summits, must suffer unusual privations. Evidently a prolonged defence conducted on such a system would be very costly in men and material, and of very uncertain advantage.

Defence of a long line of mountains difficult and dangerous.

Therefore, whenever the theatre of war is in part mountainous, like Southern Germany or North Italy, though bodies of troops may manœuvre in the hills, to protect a flank or to threaten an adversary's, yet the main action of the campaign will be in the districts which are practicable for great armies. And what is now the subject of discussion is not mountain warfare, such as is carried on against hill tribes, but the nature of the obstacle interposed by a long narrow range of mountains.

If, then, the defensive army, seeing the danger and futility of occupying all the passes, concentrates in the chief of them, the enemy would more easily break through the front at unguarded points and descend upon the rear; and the fate of a body of troops attacked in front, and dependent on a single intercepted issue in rear, would generally be the same as that of the Austrians at the Monte Legino.

Defence of a few chief passes equally ineffectual.

It is more usual, therefore, and more consonant with prudence, to hold the principal passes—that is to say, those which lie most directly in the line of operation, and have the best communications with the rear—with advanced-guards, keeping the mass of the army disposable at points in

rear where many valleys and passes unite; thus securing the retreat of the advanced posts, supporting them if necessary, and opposing with a formidable force the first hostile troops that cross.

Passage to be
effected if
possible by
stratagem, not
by force,

p. 277.

If a long line be held by the defender, the assailant, keeping his adversaries dispersed by feints on many points, will generally prefer to pass at an unguarded issue rather than force a passage, certain of seeing the whole system of defence rapidly fall to pieces when the front is broken. Thus, Frederick of Prussia wished, in 1757, to pass from Saxony to Bohemia, the object being Prague (see woodcut, Chap. IV. Pt. V.)—and the best and most direct road was that of Pirna and Aussig along the Elbe. But it was guarded by strong Austrian detachments; therefore a column from Chemnitz advanced first towards Egra, the station of an Austrian corps (a second being on the Eger at Budyn), and after feigning to attack, rapidly countermarched on Auerbach, and passed over the ridge to Komotau and Linay. The detachments in the Elbe valley, thus threatened in rear, retreated in haste, leaving the road open to the king, whose columns united on the Eger as rapidly as the hostile body from Egra came to Budyn—and the defensive line of the mountains was lost to the Austrians.

At the same time, on the side of the Riesengebirge an Austrian corps disputed the advance of a Prussian column at Reichenberg; but another Prussian column meanwhile passed at Trautenau, and the hostile corps thereupon retreated in haste. The mountain-chains did not prevent the Prussian columns from concentrating before Prague.

and not at
several dis-
tant points.

But the manner in which Frederick's forces passed the mountains offered a great opportunity to an able adversary. They were separated by great distances, and their extended front manifestly gave the enemy the advantage of superior power of concentration. Therefore Napoleon, in such a case, while making feints on many points to turn or distract the defenders, passed his main body, in 1800, at one point. And this is doubtless the right way of conducting such an operation. The crests of the chain once mastered, it is impossible for the defenders to know what is passing behind the mountains. Any of the assailant's columns may be the head of the main army. The defenders, therefore, must either fall back and concentrate beyond the mountains, leaving the passage free; or if they block all the issues, must expose some part of their line to be

overwhelmed, and the communications of the rest threatened. Therefore a general, whose object is to pass a mountain-range defended by the enemy, should make feints at many points; but the main body should pass either in one column, or in columns so near each other, and so well connected, as to unite readily.

On the whole it may be said, that if the crests of a mountain-range be held by an enemy entirely on the defensive, the strategical advantage will be with the assailant, who ought either to turn or break the enemy's front. The advantage of a mountain frontier to the defender will be,—
 1st, *that of retarding the enemy's advance*, thus giving time to concentrate on the threatened line—an advantage which may be increased by holding the passes with detachments to augment the difficulties of advancing; and, 2ndly, *that of limiting the enemy to a few difficult lines of supply after he has passed it*. Unless the mountain-range be of great depth, it will generally be better to hold it only with detachments, and to assemble the army at some point where it will oblige the enemy issuing from the mountains to form front to a flank. Defeat in such a case, driving him back into a single difficult road choked with trains and supplies, or, perhaps, driving him off the line altogether, cannot but be disastrous.

It might at first sight appear that the well-known case of the lines of Torres Vedras held by Wellington entirely on the defensive, is contradictory of what has just been affirmed. But there were many circumstances to make this a case specially favourable to the defender. 1st, The lines could not be turned, for they rested on one side on the Tagus, on the other on the sea. 2nd, They had been artificially fortified, so as to be absolutely impregnable for many miles of their length; and all the passes were defended with strong works armed with heavy artillery. 3rd, The Tagus, the sea, and the roads in rear, enabled the defenders to be easily supplied. 4th, A mountain-chain perpendicular to the line of defence limited the enemy's attack to one side of that chain, since to have divided his forces would have been to offer one wing to the concentrated army of Wellington; and thus, though the line of defence from the Tagus to the sea was 29 miles, yet only a front of 14 miles could be at one time threatened, and of that length scarcely a half was assailable. Thus the case is reduced from that of a *continuous line of defence*, to that of an *exceptionally strong position*.

Continued
 defence of a
 mountain-
 chain ought
 to be turned
 to the advan-
 tage of the
 assailant.
 Its real uses
 as a defensive
 obstacle.

Case of Torres
 Vedras excep-
 tional.

See Map
 No. 13.

Rivers considered as obstacles.

The defence of rivers safer than that of mountains,

but the passages more numerous.

Use of the river to screen the assailant's movements.

Possession of the higher bank at an inward bend very advantageous for crossing,

A river offers as an obstacle conditions different from these. The defenders can deploy, so as to bring an overwhelming convergent fire, both of small-arms and artillery, to bear on the columns crossing the bridge; and these, as they successively pass the obstacle, must still deploy under fire. The detachments of the defensive army along the course of the stream will generally have good communications with each other; for as the banks of a river, especially one that is navigable, are generally fertile and populous, good roads often follow its course on both banks. Hence the defenders need not, as in mountain-passes, fear the unexpected appearance of an enemy on their flanks or rear.

On the other hand, as it is easier to throw bridges in a rich populous territory than to make roads over rugged and desolate mountains, the good passages over all but the largest rivers will generally be far more numerous than over a corresponding extent of mountain-range. Thus, there are six passages on practicable roads over the Ticino in 36 miles, from Turbigo to Pavia; while in the whole extent of the western face of the Italian Alps there is but one good road (fit to supply such an army as that of Napoleon III. in 1859), that of the Mont Cenis. And the more numerous the practicable avenues, the greater the difficulties of the defence; for either some must be left unguarded, or the army must be spread on an extended front.

When an army approaches a river defended by the enemy, its first object will be to drive all the hostile troops then in its front to the further side, and to extend a cordon of posts and vedettes along the stream within the limits of possible operations. For, having possession of one bank, it can manœuvre unknown to the enemy; and as the enemy's movements will also be screened, it will be better (instead of forming a theory of his doings, which will very likely be false) to follow a sound plan—that is, one which will enable the army to cross with least risk, and at the same time with the most effective strategical result, whether by turning the flank or breaking the front of the defensive line.

There are two features of the case of special significance—namely, that a river is generally winding, and that the higher bank is sometimes on one side, sometimes on the other. The object of an assailant will be to pass part of his troops at some point where he possesses the commanding bank, for he can thus, with comparative impunity, drive the defenders

from the other shore, and bring his forces, and materials for passing, undiscovered to the spot. And if at that place the river also winds inward, indenting his front, he will, by disposing his troops round the bend, command and enclose the angle of the other bank.

For instance, in the campaign of 1813, Napoleon wished to pass the Elbe near the village of Priesnitz. The conditions were favourable, for the French bank commanded the other, and the bend of the river there indented the French front. Three hundred men were thrown over in the night, and established themselves on the further side. They were attacked, in the morning, by superior forces, with artillery; but the French, bringing 100 guns to bear from their own side, forced the enemy to retreat. During the following night nearly 3000 men crossed, and a work was constructed capable of holding two divisions; whereupon the enemy retired altogether.

See woodcut,
Chap. IV.
Pt. V.,

p. 27

The conditions may be so favourable as to enable large masses to pass even in face of an assembled army. In 1809, Napoleon, after entering Vienna, and guarding all the bridges of the Danube up to Passau, wished to cross and attack the army of the Archduke Charles, then opposite Vienna, on the left bank. First, the Emperor seized the large island of Lobau, and connected it with the right bank by a long bridge. Then he accumulated on the island the means of crossing, together with a force of more than 20,000 men. The arm of the river is 120 yards wide, and makes a favourable bend; and by seizing the two villages of Aspern and Essling a space would be enclosed and secured capable of holding a considerable force. On the 20th May bridges were thrown, two divisions crossed, and Aspern and Essling were seized. The Austrians, who had assembled on a height twelve miles up the river, came on in line of battle, and a desperate struggle ensued, chiefly for the possession of the villages. But the reinforcements to the French from the right bank came too slowly to maintain the battle; and the part of the army that had crossed—numbering, when first attacked, 30,000, afterwards 60,000, against 90,000 Austrians—was compelled to repass the branch of the stream to the isle of Lobau.

and may
ensure the
passage of the
whole army
in face of the
enemy.

See woodcut,
page 243.

When the most important passages on the main line of operation present conditions specially favourable to the assailant, it will be difficult and hazardous to oppose the passage. So important is the circumstance of the hither bank commanding the further, that the Austrian army drawn

Some rivers
indefensible.

up behind the Mincio, in 1859, to await the French and Sardinians, quitted its position and crossed the river to seek its adversaries; "for," said Giulay, the Austrian general, "the enemy, whom it is impossible to observe from the left bank, can mask his movements and bring all his forces suddenly on any point before our troops can be warned and concentrated." And he had a precedent to justify his opinion, for in 1796, the Austrians being on the defensive from Peschiera to Mantua, Napoleon broke their front by crossing at Valeggio (see woodcut, page 30). Yet the Mincio possessed otherwise great advantages for defence, being a short line, secure on the flanks, and having two issues over it secured by Austrian fortresses.

It may be assumed, then, that when the assailant's bank decidedly commands the other throughout its length, or at the points where the roads forming the line of operation cross, the river is unsuitable for a defensive line.

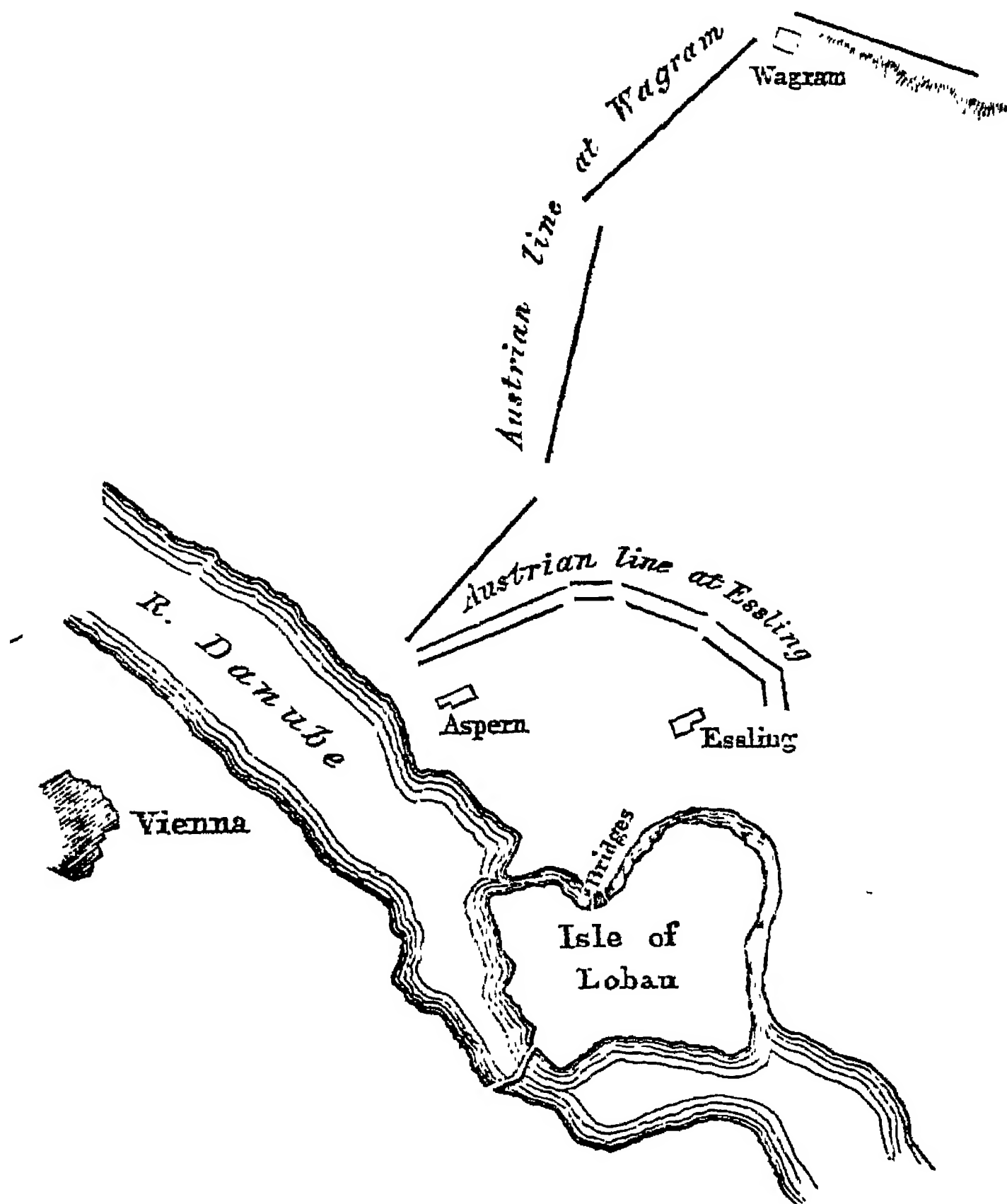
The lower bank still defensible if it offers strong points.

See Map No. 14.

But it must be observed that the mere command of one bank over the other will not be promptly effectual unless the opposing troops are unable to obtain shelter from the assailant's fire. It will naturally often happen that villages or towns are situated on one or both sides of a bridge. In this case, even if the assailant's bank has a moderate command, the buildings on the other side may, for a time, be defensible. At the battle of La Rothière, in 1814, the French right rested on the bridge of Dienville, on the Aube—and the Austrians sought to turn that flank by sending a corps along the other bank. The Austrians' bank commanded the other by about 30 feet, rising abruptly to a plateau less than 50 yards from the bridge, which was 95 yards long and 5 yards wide. But at 20 or 30 yards from its extremity on the French side was a substantial church, proof against field-artillery, backed and flanked by the houses of the place. This was occupied so successfully that the Austrians were unable to pass the bridge throughout the battle, or even to drive over the river a French detachment on the left bank.

When the defender sees that the passage cannot be opposed, his usual course will be to take a position in the neighbourhood of the bridge; and the assailant, after passing, cannot manœuvre to turn this position, for by so doing he would uncover the bridge, the sole link in that part of his line of operation. He must therefore make a direct attack on the position, which will almost certainly be on commanding ground. After his repulse at Essling, Napoleon accumulated on the island of Lobau such ample

means of passage, and so strengthened his communications with the Vienna side of the river, that it was in vain to attempt to oppose his landing; the Austrian army therefore took post 6 miles off, on the heights of Wagram, its right stretching towards the Danube. Napoleon, after passing, formed his columns of attack, and was victorious in the battle.



In 1862, Burnside threw the Federal army on the right bank of the Rappahannock, at Fredericksburg, almost without opposition, covered by his powerful artillery. Lee observed the passage from his position on the opposite heights, and received the Federals, when they advanced to attack him, with so destructive a fire that they were driven in rout over the river.¹

Passage in presence of a concentrated enemy hazardous.

¹ Compare our own experience in the South African war when, after successfully crossing the Tugela at Potgieter's Drift, and again at Vaal Krantz, we failed to drive the Boers from the heights beyond the river.

If, therefore, circumstances are so favourable as to enable an army to pass a river in presence of the enemy, it must generally advance afterwards to attack that enemy in a strong position. But, in the great majority of cases, circumstances are unfavourable to an open passage. An army, however superior, seeking to force its way over a bridge, against an enemy posted on the higher bank, would certainly experience heavy loss. Thus, in 1810, Craufurd with the Light Division was driven over the Coa by a greatly superior force under Ney; but when the French attempted to pass the bridge, the British troops, lining the high bank, destroyed the head of every column, till the unavailing carnage caused the French to desist. And if the banks were of equal command, still the task would be too formidable for an equal army; for the only point at which an attacking column could advance being known—namely, the bridge—provision could always be made for bringing an overwhelming fire to bear on it. And if buildings, woods, or dykes, near the bridge, afford a shelter for the defender's infantry, the passage, in face of their fire, will be still more impracticable; indeed, such advantages will, as at Dienville, frequently balance the superiority conferred by the commanding bank. It may be inferred, therefore, that the points where a passage can be forced are comparatively few: and we may draw, for future use, the conclusion that, *in the majority of cases, to attempt to pass an unfordable river, at a known point, in presence of a prepared enemy, demands a great superiority of force*—especially of artillery.

Stratagem
usually em-
ployed.

For this reason commanders generally seek to gain a footing on the opposite bank by manœuvring.

Having obtained a command of the whole or a large portion of one bank, the assailant will show the heads of his columns, and make preparations as if to cross, at many points; while the real bridge will be constructed, or seized, and the first troops thrown across, elsewhere. Unless the defender's bank confers a very extensive and commanding view, he will be doubtful which column will make the real attempt—all must therefore be opposed; meanwhile, covered by the high or wooded banks, the assailant's troops will be moving towards the real point. In general, a bridge of some kind, fixed or flying, must be thrown; and it will be a manifest gain to possess some creek or tributary stream where the materials of the bridge may be prepared unseen, and floated to the point of passage. If time allows, the means for throwing great numbers across at once may be prepared. In

his second passage of the Danube, Napoleon placed 70,000 men, with artillery and cavalry, on the further bank in a single night. In 1704 the French had a flying bridge on the Rhine (that is, a bridge or raft passing from bank to bank by means of an anchorage up the stream), by which 500 infantry and 140 cavalry crossed at each trip. But, in all cases, success will in great measure depend on the ability of the assailant to augment his force on the opposite bank *faster* than the defender can bring troops to that point from other parts of the river, and from the reserves.

Necessity for multiplying the means of passage.

Although it is essential to an advance of the army after passing that the assailant should possess the bridge of a great road *on* the line of operation, yet it is not necessary that the first troops should pass at a great road. On the contrary, if secrecy is an object, a point of passage will be more likely to be found unguarded elsewhere. All that is essential for the passage of the first detachment is, that the ground on both banks should admit of the manœuvring of troops of all arms. And it will be a great advantage to find, unguarded or weakly guarded, on the opposite bank, some easily defensible point, such as a village, a church, farm-buildings, or a small wood. For as the necessary preliminary to throwing a bridge is to establish a party on the other bank, so some defensible point will enable the first troops to hold their ground, and to protect the construction of the bridge, or the completion of other modes of sending the rest of the troops across, such as the passage by boats or rafts. The seizure of the Portuguese seminary on the further bank of the Douro, by Wellington's advanced-guard, is a well-known example. Even when a permanent bridge is mastered, it will be necessary to throw other bridges at convenient spots near it, so as to concentrate on the other bank faster than the enemy; and throughout the operation feints should be persisted in at other points, to confuse and deceive the opposing general.

First troops pass at a weakly-guarded point.

Advantage of seizing a defensible point on the opposite shore.

A force, then, being thrown across sufficient to deal with any that the defender can assemble at that point, it may advance along the bank and assail in flank or rear the defenders of some important neighbouring passage, at the same time that another column makes a direct attack from the other bank on the same bridge. This is the usual method of gaining a footing, and it may be executed either between the extremities of the enemy's line or beyond one extremity—that is to say, either by breaking his front or turning his flank. The expediency of preferring

First troops that pass aid in the attack on the main passage.

either of these methods to the other must depend in great measure on the dispositions of the defender. For he must conduct the defence in one of two ways: either he must guard only the passages on the direct line of operation—in which case his front, too compact to be broken, may be turned; or he will guard all the passages by which the assailant can possibly seek to pass—in which case his front, thus dangerously extended, should be broken. In the defence of a river line, however, as in all other cases where the defender's object is not merely delay, no scheme of action is likely to be effective unless designed and arranged with a view to a bold and energetic counter-offensive at the first favourable opportunity. The assailant must be prepared to have to meet such a blow, which may be delivered in various ways as described in subsequent chapters.

EXAMPLES OF PASSING A RIVER ON THE FRONT OF THE DEFENSIVE
LINE.—MOREAU'S PASSAGES OF THE RHINE.

(Map No. 7.)

See woodcut
on next page,
also Map
No. 7.

In 1796 it was arranged that the passage of the Rhine (mentioned at page 163) should take place a little above Kehl—the fortifications of that place forbidding a direct passage.

Use of a
tributary
stream.

The river Ill runs nearly parallel to the Rhine past Strasbourg. A canal unites it to the small branch of the Rhine, called the Bras Mabile.

The materials for the passage were to be collected in Strasbourg, and to be taken by the canal to the Bras Mabile, where the attacking force was to embark.

Wilstett to
Kehl, 5.

On the opposite bank the river was watched by the Suabian troops in the camp of Wilstett, the works of Kehl, and along the course of the Rhine for several miles on each side, 7500 men in all, of which about half were near enough to oppose the passage. The Austrians had about 9000 men between the Rench and Murg, and about 4000 extending from above Kehl to Brisach.

Feint to de-
ceive the
enemy.

All being ready, a false attack was made on the 20th June on the Austrian camp at Mannheim.

On the same day the troops for the first embarkation quitted the neighbourhood of Mannheim for Strasbourg. The French right wing from the

Upper Rhine also closed on Strasbourg. All the troops were to arrive near there on the 23rd June.

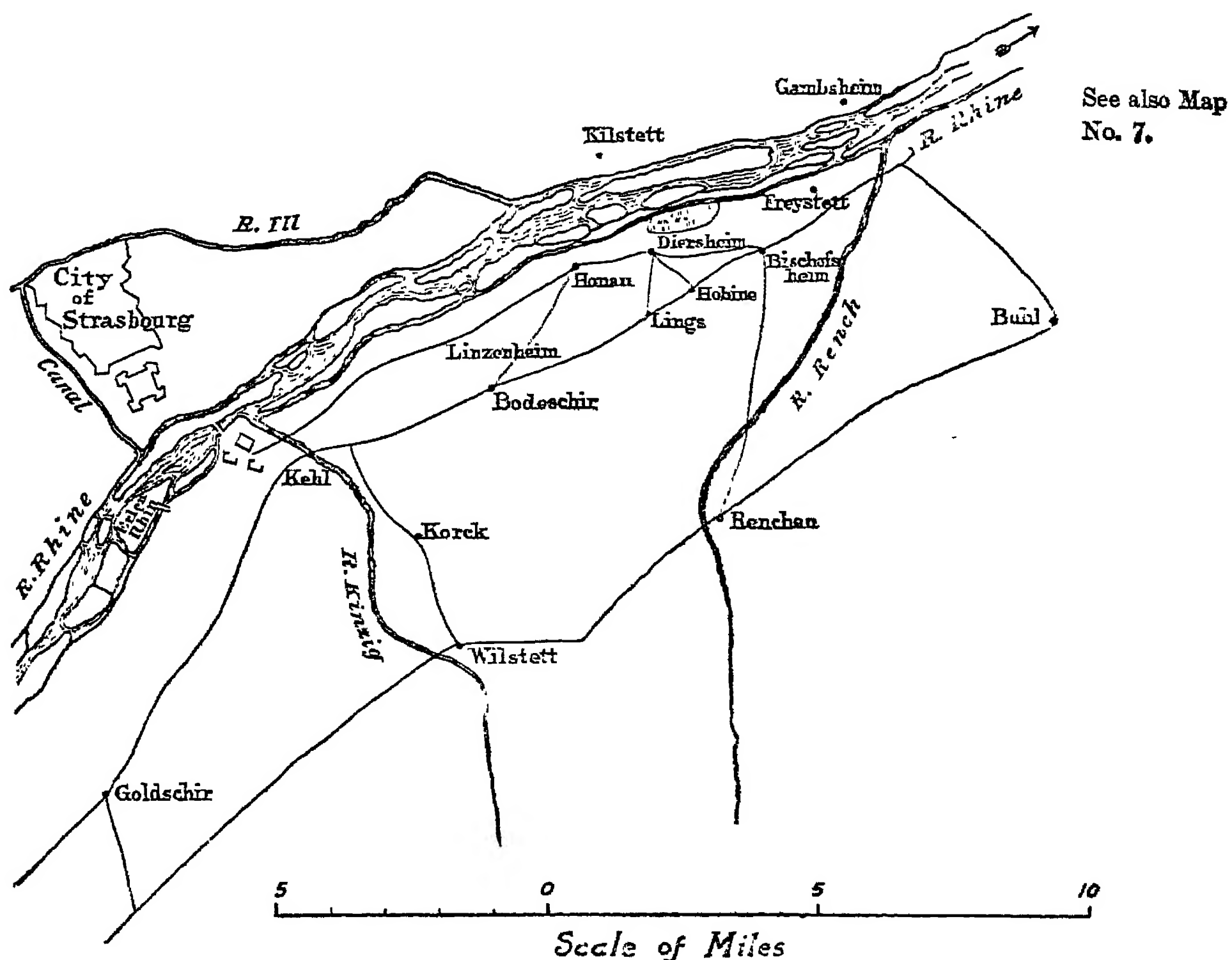
16,000 French, for the main attack, were assembled in Strasbourg.

12,000 were to make a secondary passage at Gambsheim.

Strasbourg to
Gambsheim,
13.

Between these places, three false attacks were to be made to confuse and distract the Austrians.

The width of the main branch of the Rhine is from 200 to 300 yards



near Kehl. The numerous islands diminishing the total breadth of the stream—the woody banks, and the dykes along the shores, forming at once lines of defence for the first troops that might cross—were all circumstances in favour of the passage.

24th June.—Before midnight of the 23rd all the boats for transport were brought down the canal into the Bras Mabile, and the first detach- False attacks at the moment

of commencing the enterprise. ment, 2500, embarked at half-past one. The guns at the points of false attacks then opened.

The flotilla ascended the Bras Mabile, and got into the main stream; the main body landed on the wooded islands nearest Kehl—a detachment of 1500 men seized the bridge connecting the Erlen-Rhin with the Kehl shore—another attacked and carried the batteries on the Erlen-Rhin—a fourth attacked the two small islands on the stream; the boats, having landed all these, returned for fresh troops.

Use of a defensible point. The Austrians, from their camp at Wilstett, marched to this point in time to oppose the troops first landed, who maintained themselves behind the dykes.

Assailants concentrate fastest. A flying bridge from the French shore to the Erlen-Rhin was established by six in the morning. Infantry passed incessantly there, and by boats.

First troops turn to attack a main passage. Sufficient troops having passed, they moved on Kehl. A detachment attacked the Austrian works, aided by heavy artillery from the Strasbourg bank. The enemy were driven out, on the Wilstett road, and had no time to destroy the bridges of the Kinzig.

Main passage assured, army passes. The bridge of boats opposite Kehl was commenced at six in the evening and finished next morning. The communications were thereby assured, and cavalry and artillery passed.

25th June.—Moreau reconnoitred the enemy.

Wilstett to Renchen, 6. *26th June.*—The French pushed out on Goldschir, Korck, and Wilstett. The Austrians, who had been driven back on Wilstett on the 24th, retired on Buhl.

Had Moreau brought Laborde's division from the Upper Rhine, where it was now useless, he might have assembled at Wilstett, on the 26th, 45,000 men—enough to guard the passages, and to crush all the troops between him and the Murg.

The Austrians after the passage were scattered thus:—

Dispersion of the defensive forces.

4000 on the Rench.
8000 at Buhl.
2000 on the Murg.

About 4000, separated from the rest, moved up the river towards Friburg.

The rest of the Austrian army of the Upper Rhine was between Mannheim and the Murg.

PASSAGE OF 1797.

After the Archduke had driven Moreau over the Rhine in the preceding year, the Austrians besieged and took the works of Kehl, and greatly strengthened them. The Bras Mabile was now dry, the canal useless—therefore the passage could not be at Kehl. Strasbourg to Kilstett, 9.

Between Diersheim and the river is a small wood—the dykes there were favourable for defence—and separated from the wood by a small fordable arm of the river, was a large island. Above Kilstett the Ill runs into the Rhine, and would convey to the spot the requisite transport. It was resolved, therefore, to pass at Diersheim.

The Austrians were now in much greater force than in the preceding year, having, in the camp of Bodeschir, and between Kehl and Bischofsheim, about 20,000 men. Bodeschir to Diersheim, 4.

The troops of the French centre were assembled on various pretexts about Kilstett on the 19th. The divisions, from right and left, were to arrive during the following night and day.

Forty boats, each for 70 men, a flat boat for guns, and twelve great boats from Strasbourg, were to pass down the Ill to embark the first detachment, which was to land principally on the island opposite the wood of Diersheim, a smaller force at Freystett, and a third between Freystett and Diersheim. Use of the tributary stream.

Two false attacks were to be made near Kehl, a third lower down.

20th April.—The boats were obstructed by a sandbank at the mouth of the Ill, and delayed till 5 o'clock in the morning. Meanwhile the false attacks had opened and alarmed the Austrians. Their batteries, sweeping the river, obliged all the first troops to land on the island; 300 Austrians were driven from it, and the advanced-guard attacked Diersheim. The French took the village, and, centring on it, extended to Honau on the one side, back to the Rhine on the other, on a front of 3000 yards. Use of a defensible point.

At 11 o'clock, the Austrians from Bodeschir, 4000, formed line from Freystett to Honau. Defenders concentrate fastest, but

fail to drive
back the as-
sailants.

At 3 o'clock the French established their flying bridge at Gambenheim, which could take only 25 cavalry, or 1 gun and waggon, at each trip.

The French had then in line about 8000 men—the Austrians 11,000, with a very superior cavalry and artillery. The Austrians attacked Diersheim and failed. The French took Honau.

The flying bridge was rendered useless by the enemy's fire; but a bridge of boats, begun at 6 P.M., was finished at midnight. In the night, an infantry division, a cavalry brigade, and 12 guns crossed.

21st April.—Austrians, superior in force, attacked Diersheim and Honau, but failed.

Assailants
strongest at
point of
attack.

The French were now reinforced fastest, and at 2 o'clock Moreau attacked with superior forces. He directed his principal column between Lings and Hobine, his right on Linzenheim, his left on Freystett. The Austrians were routed, and the French advanced thus:—

Concentric
advance from
the river—
main passage
gained.

Centre, up the valley of the Kinzig, beyond Wilstett.
Right, on Korck and Kehl.
Left, on Bischofsheim, with his advanced-guard on the Rench.

22nd April.—French advance resumed.

Assailants
continue to
push the de-
fenders apart.

Centre, up the Kinzig.
Right, up the Rhine valley.
Left, forced the Rench.

The Austrian right from Mannheim marched for the Murg. Moreau hastened to anticipate it; but an armistice between the two countries ended the campaign.

COMMENTS.

The communications of the assailant, after he has passed on the centre of the defensive line, being thus narrowed to a point, are more than usually precarious at the point of passage; but an army being fairly interposed between the parts of an enemy's front, will generally, in this as in the cases discussed before, be secured from counter-attack by the anxiety of the hostile forces to reunite before taking the offensive. But as the enemy will concentrate twice as fast upon the centre as upon one flank, the necessity for prompt and vigorous action on the part of the

assailant, if he would derive all the advantages from the situation which it offers, is even more stringent after passing a river than in any other case. Moreau's tardiness in advancing after the passage in 1796, gave the Archduke time to concentrate his forces, to make his dispositions, and to effect his retreat on Ulm. Had the French struck out with vigour, pushing the Austrian left through the forest, and rolling Latour downward through the valley, the Austrians might have been cut altogether from the Danube, and their wings permanently sundered.

The apparent defensibility of a river or mountain-chain frequently offers inducements to the defensive army to attempt to guard a longer line than its numbers can adequately occupy; and in such a case a great opportunity is offered to a skilful assailant, who, inducing the enemy by dexterous feints to maintain or even increase the extent of his front, while his own concentration is concealed by the obstacle, should effect the passage on the centre, or between the centre and a flank of the hostile line, and should then seek, by vigorous attacks on one side, and the employment of a containing force on the other, to secure all the advantages which have been shown in Part IV. to exist in the situation.

A river frequently affords an opportunity of breaking a defender's front.

EXAMPLES OF PASSING A RIVER ON THE FLANK OF THE DEFENSIVE ARMY.—PASSAGE OF THE GAVE DE PAU.

In 1814, Soult held the Gave de Pau against Wellington. Above Orthez the river spread wide with flat banks. The bridge of Orthez was difficult to force, having a tower in the centre, the gateway of which was built up. The houses on both sides were occupied by the French, and the river there was deep and full of pointed rocks.

See woodcut, page 252.

Five miles below Orthez was the broken bridge of Berenx—from whence a narrow defile led up to the main road on the right bank.

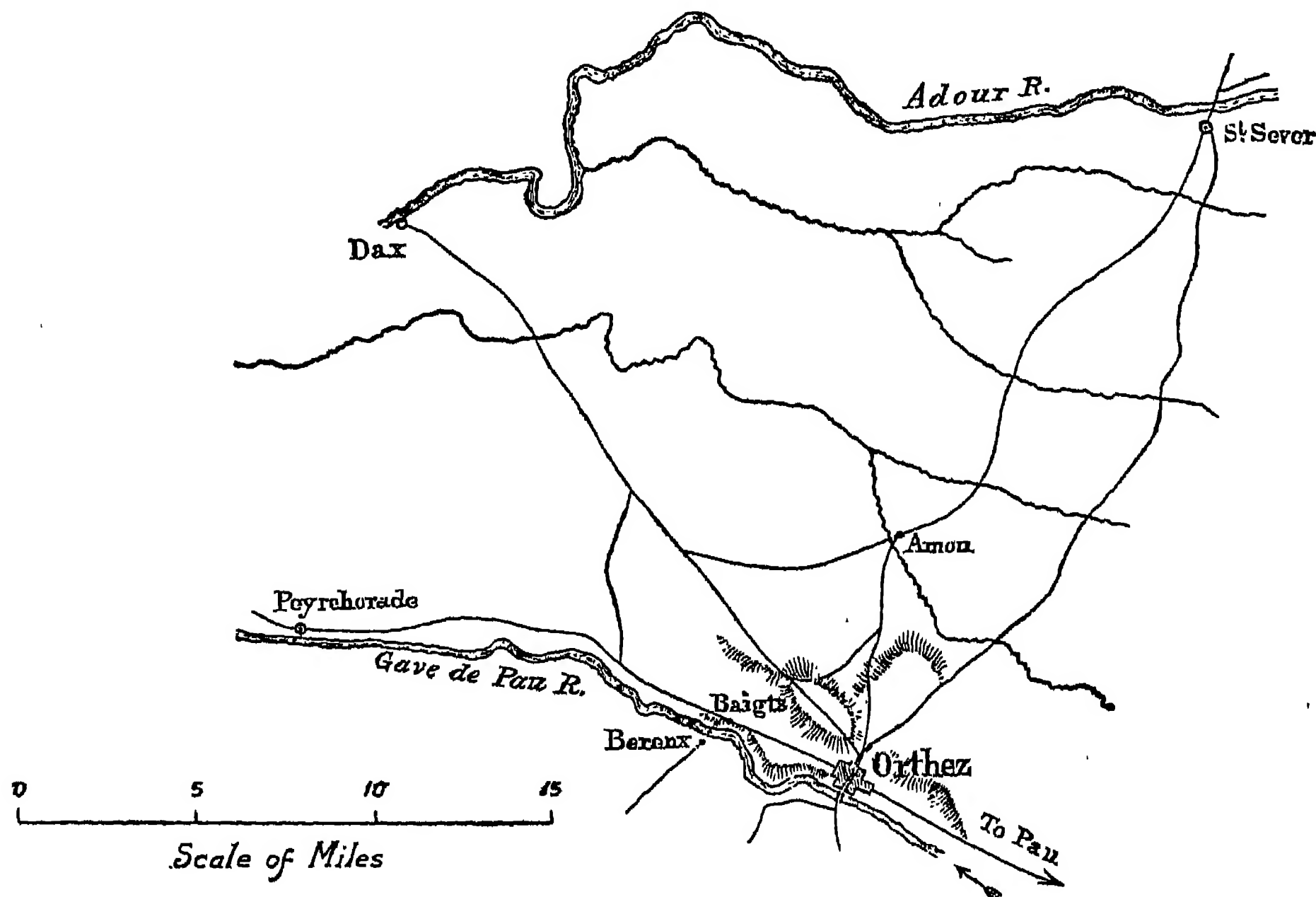
Soult designed to fall in force on the head of the first column that should cross. His line extended from near Baigts on the right, to above Orthez on the left, where, as the river was less defensible, he had placed strong bodies of troops.

Extent of the French line of defence.

Soult had 40,000 troops, of which 3000 were cavalry, and 40 guns.

Wellington had 37,000, of which 4000 were cavalry, and 48 guns.

Of the seven English infantry divisions, four were massed opposite Orthez, with 5 regiments of cavalry and 18 guns.



Orthez to
Berenx, 5.

An infantry division, with a brigade of cavalry in front of the broken bridge of Berenx.

Orthez to
Peyrehorade,
16.

Two divisions of infantry and a division of cavalry under Beresford in front of Peyrehorade.

Turning force
passes,

Beresford crossed the Gave by a pontoon-bridge and fords, and advanced with the main part of his force on the Pau road, throwing a detachment to his left to threaten Soult's communications with Dax, where he had a magazine.

and covers
the passage
of the main
body.

Simultaneously a pontoon-bridge was commenced at Berenx. Beresford, halting for the night near Baigts, covered the construction of the bridge. Communications were thus established between the centre and left.

Soult did not receive intelligence of Beresford's movements till he was near Baigts. By that time two divisions drawn from the right were approaching the bridge of Berenx, and that which had before been posted

there was about to cross. Thus five of the seven English divisions were massed opposite Soult's right, astride the river.

Soult now hesitated whether to fall upon Beresford, and the column crossing at Berenx, or to take a defensive position in rear. He finally decided on the latter course. Doubtless he was swayed partly by the strength of that position, but powerfully also by the circumstance that he could not know for certain the proportion of troops at each point. If he withdrew too many troops from left to right, the English right passing above Orthez might strike at his rear; if he attacked the English left with insufficient numbers, he might suffer losses to no purpose, and lose the Dax road. The screen of the river, veiling in some degree the assailant's movements, told against the defender.

Defenders
take position
in rear.

In taking his new position he pivoted on Orthez with his left, and swung his centre and right backward from the river in front of the Dax road. Wellington's divisions, when all had passed to the right bank, attacked the front of the position, dislodging the enemy by main force; and towards the close of the action, the English right, passing above Orthez, turned the French left, and accelerated the retreat.

PASSAGE OF THE TICINO, 1859.

(Maps No. 12 and No. 5.)

In the middle of May the Austrians had their right towards the Sesia, near Vercelli, where they had destroyed the bridge, extending along that river to its confluence with the Po. Thence their line stretched along the Po (less than 300 yards wide in this part of its course), watching the principal points of passage as far as Belgiojoso, numerous bridges having been thrown over the Ticino below Pavia, to render the communications easy. The left of the army, the 9th corps, was south of the Po in the defile of Stradella.

Preliminary
operations.

The French divisions also extended along the Po from Valenza to Casteggio, watching the passages, with the division on the right thrown back to guard the issue of the defile. The Sardinians were massed on the left about Casale.

The French Emperor might aim (like his great predecessor in 1796) at Piacenza, operating by his right—might cross directly from his centre at Valenza, and the other passages between that and the Ticino—or

crossing by the passage he held at Casale, might prefer to force the Ticino rather than the Po.

The Emperor took the third course. He placed the Sardinian army between Casale and Vercelli, and threw it across the Sesia. This might be preliminary to a passage of the Po opposite the French centre, therefore the Austrian line fronted as before.

Feint towards
Piacenza.

Vercelli to
Novara, 14.

Demonstrations were made on the French right as if for an advance on Piacenza, and then a movement from right to left was begun behind the screen of the river. The 3rd French corps (Canrobert) was withdrawn by rail from beyond the Scrivia to behind the Sesia, where it crossed and joined the Sardinians. This force was destined to cover the assembly of the army on the line Vercelli-Novara-Milan. The remaining corps moved along the roads bordering the Po. Demonstrations were made along the river by troops left for that purpose, as if to prepare for a passage; and when the 1st corps, last of all, quitted its position near Voghera, it broke up the roads and destroyed the bridges behind it to prevent pursuit, or a counter-advance by the south bank.

1st June.—The French corps were passing from Vercelli towards the Ticino screened by Canrobert and the Sardinians, who had driven back the divisions forming the extreme right of the Austrian line to Robbio.

The Austrian 2nd line (three corps) was drawn on to the arc Robbio-Vespolate-Vigevano, thus fronting the enemy and becoming the first line.

Buffalora to
Pavia, 27.

Two other corps were drawn from the Po and directed on the Ticino at Bereguardo.

Part of the 1st corps was between Milan and San Martino, covering the passage there.

Novara to
Turbigo and
Trecate, 7

9th corps between Pavia and Piacenza.

2nd June.—French movements for the passage of the Ticino—the object being to reach Milan by a flank march round the Austrians.

Advanced-
guard of turn-
ing force
crosses,

1st division of the 2nd corps to Trecate, observing the issue of the Ticino at San Martino, and thus covering the march of a division of the Guard directed on Turbigo, to force the passage there and cover the establishment of a bridge. Five batteries accompanied the bridge equipage. The division passed and occupied Turbigo.

followed by
the rest.

3rd June.—The division at Trecate followed, by Galliate, the movement on Turbigo, and reached Robechetto.

The other division of the 2nd corps advanced to San Martino. The Austrians in the work covering the railway bridge retired, blowing up two arches imperfectly. Then the French division rejoined its corps at Turbigo, being replaced by another division of the Guard.

Canrobert between Vercelli and Robbio.

Sardinians moving from Novara on Galliate for Turbigo.

The rest of the French about Novara.

Trecate to S.
Martino, 3½.

The Ticino here is as wide, or nearly so, as the Thames at Richmond—quite unfordable—and much more rapid.

Banks of the river quite low, especially the left, and very woody at a short distance from the shore, concealing movements of troops.

The Ticino had ceased to be an obstacle further than that the French must cross it at San Martino by a single damaged bridge. The real impediment lay beyond. Standing on the bank at the foot of the railway bridge, the spectator sees before him low flat meadows, terminated three-quarters of a mile off by a huge mound spreading in a wide semicircle. From the bridge of San Martino three roads diverge, piercing this mound at different points; one to the left, to Buffalora—that in the centre, raised 15 feet above the level, to Ponte di Magenta—the railway road, 300 yards from it, similarly raised—and from a lower point on the river runs a fourth road to Ponte Vecchio, crossing the mound at 1200 yards from the railway. This mound is the retaining-wall of a large canal, deep and rapid, 30 yards wide, running between steep bushy banks 30 feet deep. The problem was to file over the bridge of San Martino and attack the four bridges of the canal guarded by the Austrians, aided by the three divisions from Turbigo under M'Mahon, who were already beyond the obstacle. And as the Austrians held the passages of the Lower Ticino, and might attack by either bank, it was necessary to keep a force about Novara to cover the communications with Turin.

Austrian Movements.—Giulay's design was to carry his army from the right to the left bank, and attack the Allied force that might have crossed. To this end his troops on the 2nd had been massed at the two points of passage, Vigevano and opposite Bereguardo. He trusted to the bridge-head of San Martino to delay the French till he should have his army assembled across the road to Milan. An emissary from the Emperor of Austria,

arriving at this critical moment with instructions, suspended the movement, which was delayed for several hours.

4th June.—The 2nd and 7th Austrian corps, covered by the 3rd, had crossed at Vigevano—their leading brigades were near the bridges of the canal, from Robecco to Ponte di Magenta. The remainder of these corps were 5 to 8 miles distant. A division of the first corps held Buffalora; another at Cuggiono opposed M'Mahon.

The 5th Austrian corps from Bereguardo was at Falla-Vecchio, 12 miles off. The 8th corps from Bereguardo had been directed on Milan, and was now at Binasco, 17 miles off.

Allied Movements.—The division of the Guard crossed at San Martino and covered the repair of the bridge.

The 3rd and 4th corps were put in motion from Novara for San Martino—the 1st was to follow.

The Sardinians from Galliate to follow M'Mahon.

In face of the difficulties of forcing the bridges of the canal, it was Louis Napoleon's design only to threaten them with the division of the Guard, till M'Mahon's advance should have caused the defenders to turn their attention to him; then the Guard was to assault, and the attacks on the two banks would support each other.

The Guard was all on the left bank of the river at half-past 11.

M'Mahon was to leave Turbigo at 10 o'clock. He had 7 miles to march, and might be expected to reach Buffalora about noon.

The approach of M'Mahon was immediately reported to the Austrian commander-in-chief. Nevertheless, the first reinforcements from the Austrian rear did not arrive on the field till half-past 4 in the evening.

Turning force
moves upon
the main
passage.

M'Mahon's divisions were directed on Buffalora and Marcallo. His right had already approached Buffalora, and his foremost troops were engaged, when he found an Austrian force in the space between his divisions. He recalled the leading troops, deployed his own corps across the space, and once more pushed forward, with the Voltigeurs in second line.

The front
attack is pre-
cipitated.

But the fire of his advanced-guard had been the signal for the Emperor to launch his troops at the bridges of the canal. Much hard fighting ensued, and heavy loss. At Ponte Vecchio the Austrians were driven over the bridge, but blew it up in retiring.

At the railway bridge they were also driven over; and the French passing there turned along the further bank and aided in the attack of Ponte di Magenta, which was also carried.

Many repulses, however, had been suffered before so much success was achieved; for the attack had been precipitated by the first discharges from M'Mahon's troops, which, occupied in their deployment, caused no diversion at the bridges.

At length, M'Mahon's preparations being complete, he assailed the village of Buffalora. Taken in flank there, the Austrians abandoned the bridge, falling back to a line in rear—the French passed at Buffalora—and the connection between the separate parts of the army was restored.

Turning force
aids in attack
on the main
passage.

The remainder of the action was a struggle on the part of the Austrians to make head against M'Mahon on the one side, and on the other to drive the French from the bridges. Brigades arriving from the rear were sent against them by both banks of the canal, principally the west side, and with partial success. On the other hand, troops from the 3rd and 4th French corps now began to arrive at the contested points, after crossing from San Martino. Finally, at the close of the battle the French held the bridges down to Ponte Vecchio—the Austrians that of Robecco.

COMMENTS.

In all the foregoing cases the principle is apparent of throwing a force on the opposite bank, at an undefended or unexpected point, to co-operate in clearing a passage on the main line of operation. In neither of the examples of turning a flank is the whole army thrown off the direct line of operation for the sake of passing unopposed, but the advance of the turning force is used to cover or aid the main passage elsewhere.

The difference between the passage of the Gave and that of the Ticino is, that Soult, being restricted to the right bank, could only attack Beresford's force, and had not the option of attacking the remainder of the army: whereas the Austrians, possessing all the lower course of the river from Vigevano to Pavia, could operate by either bank, and the French were therefore detained astride the river.

Turning force
not liable to
be separated
from main
body,

even if sepa-
rately de-
feated.

Real peril lies
in the expo-
sure of out-
ward flank.

It is evident that if a force were detached off the main line to make a circuit round the enemy's flank in a part of the theatre where no considerable obstacle existed, it would be in imminent danger of being cut off, and an opportunity would be offered to the enemy of interposing between it and the main body. But when, in making the circuit, it crosses a river, this risk is in great measure obviated, because the part of the river between its point of passage and the main body is an obstacle to the enemy. The kind of disaster to which it is liable is to be forced back by a superior force upon the river. Thus, had the Austrian army been more concentrated, a part might have held the bridges while a force superior to M'Mahon's attacked him and drove him back on Turbigo. If attacked on a front perpendicular to the general course of the river, it will generally be able to recross without serious losses—for a detachment of troops with artillery crossing in advance of the rest, could in most cases line the further bank and protect the passage; and the risk would generally be limited to the losses in the action, and those which must generally be incurred in retiring over a river in presence of a superior force. In fact, the point of passage will form *a pivot* for the operation of the turning force.

But it is evident that a turning force which advances along the bank with one flank on the river, exposes the other flank to a direct attack. Thus Soult, pivoting on Amou, might have come perpendicularly on Beresford's left and rolled him back on the river where there was no passage; and Giulay from the Milan road might have directly assailed M'Mahon's outward (left) flank, and driven him back on the canal and river between Buffalora and Turbigo. This kind of risk is exemplified in the two following instances.

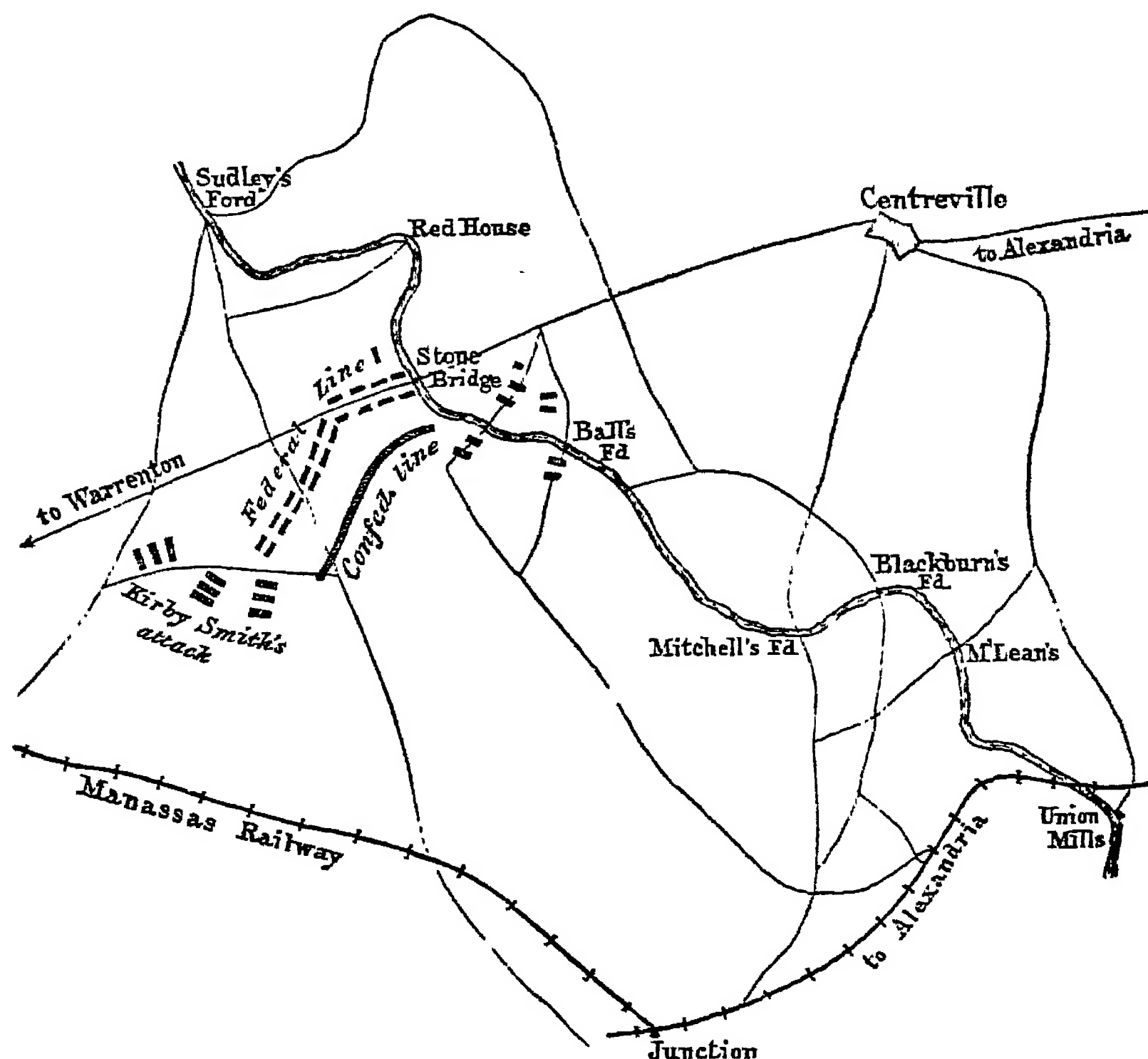
Though it has no special relation to this branch of the subject, the nature of the movement on Novara, in 1859, should be studied. The reader, already familiar with the very similar case of 1849, will have no difficulty in perceiving the risk incurred by the Allies. Had they moved from the Sesia on Mortara and Lomello, and thence on Vigevano and Pavia, they would have perfectly covered both lines to Turin by Casale and Vercelli; and the restoration of the bridge of Valenza behind them would have given the means of passing the Po, and would have materially strengthened their line of operation. Such an operation, in accordance with

the circumstances of the case, would have given the army firm grounds from which to manœuvre for the passage of the Ticino, with better chances of obtaining a decisive strategical success, and with none of the risk of fatal disaster incurred by the flank march.

PASSAGE OF BULL RUN.

From Union Mills, on the Alexandria Railway, to Stone Bridge, which is on the highroad from Alexandria to Warrenton, through Centreville, there are six passages over the stream. The Confederate army was dis-

Examples of
the risk in-
curred by a
turning force.
Extent of the
defensive line.



tributed along this space, 7 miles in extent, on the 17th July—a brigade being posted at or near each point of passage, and two in reserve.

The Federal army had advanced on that day from Alexandria to Centreville.

Direct attack repulsed. *18th July.*—The Federals attempted to cross at Blackburn's and Mitchell's Fords, but were repulsed.

Centreville to Blackburn's Ford, 2. They thereupon paused to reconnoitre the stream in order to turn the left of the Confederates, and discovered the road leading on Sudley's Ford.

Centreville to Stonebridge, 3. *21st July.*—A Federal division advanced towards Mitchell's Ford—another on the Stone Bridge—a third was directed on Sudley's Ford—the Reserve remained at Centreville.

Two of the Confederate brigades of the Reserve were in rear of the right and right centre of their line. Jackson's brigade arriving the preceding night, was posted in rear of Mitchell's Ford. Bee's brigade was in rear of Ball's Ford.

Turning force passes, and descends the bank. The advanced-guard of the Federal troops passed at Sudley's without opposition, but were met by part of the Confederate brigade at Stone Bridge detached to confront them. Pressing on, they approached Red House, where the rear of the right Federal column sought to pass. It was opposed at first by Bee's reserve; but eventually the right column of the Federals formed line from the Stone Bridge to $1\frac{1}{2}$ mile from the river on the Confederate side of the stream.

Is opposed in front.

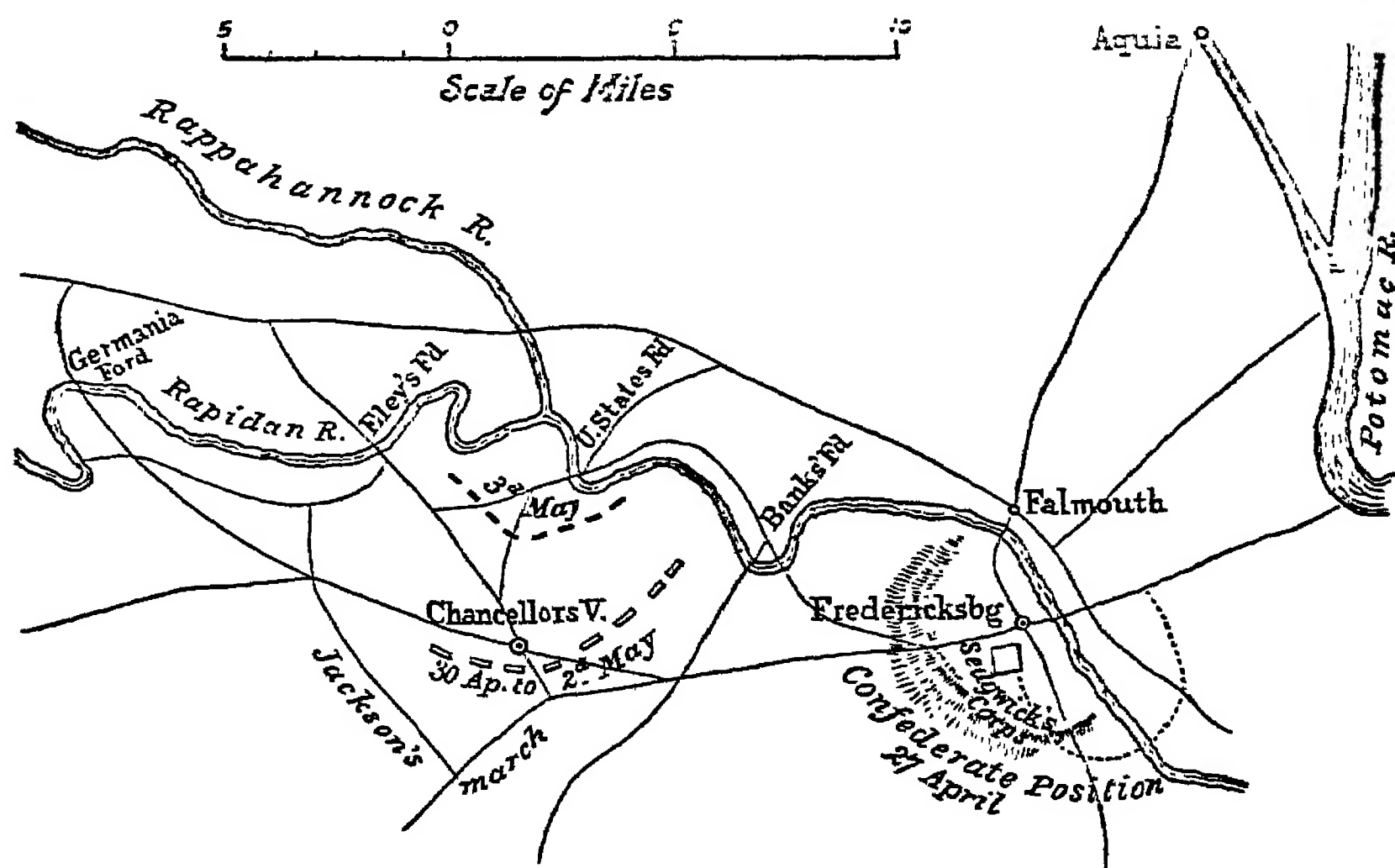
Jackson's brigade, and afterwards one from the right, arrived in support of the Confederate line.

At this time Beauregard is said to have given an order for a counter-attack, by the three brigades forming his right, on Centreville, threatening the Federal line of retreat—and the brigade at M'Lean's Ford advanced; but the order was not executed.

Turning force attacked on its outward flank. Supported by reinforcements from the right, including the last brigade of the reserve, the Confederates maintained the battle till Kirby Smith's brigades of Johnson's force arrived near the field by the railway. Quitting the train, they fell on the flank and rear of the Federals, who broke and fled over Bull Run. The Confederate brigades at M'Lean's Ford and Union Mills, advancing upon Centreville, menaced the reserve there and the line of retreat, and increased the disorder of the flight.

PASSAGE OF THE RAPPAHANNOCK AND RAPIDAN.

27th April.—Hooker encamped opposite Lee at Fredericksburg, based on Aquia, and aiming at Richmond, broke up his camp. His right wing, consisting of the corps of Meade, Howard, and Slocum, moved up the Rappahannock to cross above the junction of the streams and turn the Confederate left.



The corps of Sickles, Reynolds, and Sedgwick, under Sedgwick, were to cross at the same time below Fredericksburg, and detain Lee from the true point by menacing his front.

28th and 29th April.—The right wing having passed the Rappahan- Turning force
nock, crossed the Rapidan almost unopposed—Howard and Slocum at passes,
Germania, Meade at Eley's Ford—all moving on Chancellorsville.

Sedgwick's corps crossed below Fredericksburg.

30th April.—Couch's corps from the reserve crossed at Banks's Ford, and gains
Sickles from Falmouth at United States Ford, both on Chancellorsville. other fords.

1st May.—Hooker formed his line and intrenched it: Howard on the right or outward flank, then Slocum and Couch in the centre, and Meade next the river—Sickles in reserve.

Defenders
attack the
exposed flank.

2nd May.—Lee, aware of the movement against his left, sent Jackson by the Spotsylvania road to meet the attack. Jackson, by a road through the woods, moved past and round the Federal right.

Fredericks-
burg to Chan-
cellorsville,
12.

Hooker sent Sickles to reinforce the right. Jackson, attacking the right wing in flank and rear, broke and routed it, and drove it back on the river.

Reynolds's corps, from Falmouth, joined Hooker by United States Ford.

3rd May.—Lee attacked the angle and left face of the Federal line. Hooker was driven entirely back on the river, his right below Eley's Ford, his left below United States Ford.

Sedgwick attacked the heights on the right bank at Fredericksburg, carried them, and pushed along the Richmond road.

4th May.—Lee detached troops against Sedgwick, turned his left, and drove him over Banks's Ford. He joined Hooker by United States Ford.

Operation
fails.

5th May.—Hooker, who, on the preceding day, had cut roads to the United States Ford, and laid bridges there, retreated over it in the night.

COMMENTS.

The point in common in these two cases is, that the forces which had succeeded in crossing beyond the enemy's flank, and which thereupon aimed at his rear, advanced on a front perpendicular to the course of the river. They thereby exposed the outward flank; and that they escaped destruction in either case was due to the fact that they continued to hold, at the time of the attack, certain points of passage. Had the Federals at Bull Run let go their hold of Stone Bridge, by continuing to advance, without gaining Mitchell's Ford—or had Hooker, moving down the stream, passed by United States Ford without gaining Banks's Ford—they would in either case have been in great peril of being driven not *across* but *into* the river.

This peril may be partially remedied by an advance in echelon, retiring the outward flank; though that method, by rendering the advance on the defender's rear less direct, would also render it less decisive.

But the inference may be drawn that, when the defender's forces are entirely on one bank, and the assailant has thrown a force across beyond the flank, the most effective mode of meeting the attack will be to march against the *outward flank* of that force, with all the troops available for immediate action.

It is also very useful to consider the circumstances in which these two cases differ.

At Bull Run a large part of the Federal force was retained to cover the line of possible retreat. At Fredericksburg the wings were both thrown across the river, and the advance assumed the form of a double passage and double attack. It is evident that a passage on both flanks exhibits at once, in its most disadvantageous form, the case of an army between whose parts the enemy's forces are interposed—since the parts are separated, not only by the enemy, but by the river, and may be successively overwhelmed and driven on their bridges, while the victorious army, passing a central bridge, may cut both from their lines of retreat, or of possible junction. Another example is afforded by the campaign of 1796; where the Austrians advanced to cross the Adige for the relief of Mantua at three points—namely, above Rivoli, on Verona, and near Legnago. At Verona they were checked; at the other points they passed. The French massed first on Rivoli, on which line the Austrians had been opposed by a retarding force under Joubert. Napoleon, defeating them at Rivoli, turned southward, and, in conjunction with the retarding force that had retired from Legnago and the troops besieging Mantua, fell on the Austrian left wing and destroyed it.

Disadvantage
of a double
passage on the
flanks.

It may be held as established, then, that a double passage on the flanks *must* be wrong unless with a great superiority of force—and that superiority may generally be turned to better account otherwise. The passage of Bull Run, planned by General Scott, was much less faulty than that of the Rappahannock, planned by General Halleck.

When Sedgwick was driven to join Hooker over Banks's Ford, the line to Aquia, on which the Federals were based, was totally uncovered. In front of Hooker was Lee's army, which had already heavily defeated him; in his rear was an unprotected line and base which the enemy, crossing at Falmouth, might assail. These circumstances could not but precipitate his retreat. This situation illustrates the impolicy of throwing a

The line of
operation
must be cov-
ered during
the turning
movement.

whole army *off* its line of operation for the sake of turning the enemy; for though the chances of gaining a battle are increased, yet a reverse may be absolutely fatal.

Distribution
of the turning
and covering
forces.

Considering it, then, as established that the proper way to turn the flank of the defenders of a river is to hold the passage on the direct line with a covering force during the movement, it remains to consider what should be the proportions of the covering and turning wings respectively, and their mode of operation.

The first object of the covering force is to resist a counter-attack; therefore full advantage should be taken of the circumstance that an *inferior* force can generally, for a time, successfully oppose the passage of a river at a known point. The covering force should therefore be diminished to the utmost extent consistent with safety, and the wing whose action will be most decisive should be reinforced in proportion. To do this it will be necessary, of course, to possess the means, by bridges or fords, of passing the greater part of the army promptly across the river on the enemy's flank.

If *the whole* of the defensive army were assembled to meet the flank attack, and the assailant's covering wing were to remain on the hither bank, his chances in the battle would be proportionably diminished. The second duty of the covering force should be *to occupy and detain before it as large a number as possible of the enemy*, by maintaining a cannonade, fire of infantry, and demonstrations of forcing a passage. Had the Federal force at Centreville advanced to the river and made a persistent attack on the lower points of passage, it would have been impossible to draw troops from thence to meet the flank attack. There should be skilful and incessant reconnoitring of the opposite bank; and when it is evident that the enemy has withdrawn all or most of the opposing forces to meet the flank attack, the covering force should cross at once, multiply its means of passage, and push the enemy on the march. Should the turning wing be defeated before the arrival of the covering force on the field, the latter should retire on the bridges by which it advanced, for the enemy will, or ought to, try to intercept the retreat on that line. But should the main army maintain the engagement, or continue to progress, the covering force should advance and join in the action in a direction still covering its own bridges; for the example of Waterloo shows how effective is a combined attack from two divergent lines.

The risk of failure, so far as it is caused by the difficulty of combining the assailant's movements, will be greatly diminished by the use of the field-telegraph.

A passage effected *on* the direct line of operation, and between, not beyond, the extremities of the enemy's front, presents none of these difficulties and necessities for skilful combined action. Every man should cross: for the divided enemy will certainly devote all his efforts to re-combination, not to counter-attack; and in case of the assailant's defeat, he covers his line in retiring.

When a general sends a turning force off the line of operation, beyond a river, he naturally collects the rest of his army on the road forming the part of that line which is nearest to the turning force, for the sake of concentration. Thus, Louis Napoleon, sending M'Mahon by Turbigo, collects his army on the Novara-Vercelli road, neglecting that of Mortara-Casale, by occupying which his forces would have been dangerously extended on the day of battle. If, then, the enemy, abandoning the defensive, crosses and attacks the covering force on the hither bank, it may be forced to fight on a front parallel to the last road which connects it with its base while the turning force is beyond the river; and if the covering force be defeated the whole army may be ruined. We see what the effect might have been had the Confederates crossed the Rappahannock at Falmouth or Bull Run at the lower fords; or had the Austrians, from Vigevano, attacked the covering force at Novara in 1859. This perilous position of an army astride a river will be better illustrated by an actual example.

PASSAGE OF THE CHICKAHOMINY.

The stream itself is inconsiderable, forty feet wide, and fordable at low water; but it was liable to sudden floods, when the low grounds on both sides were overflowed for a considerable distance. See woodcut, p. 266.

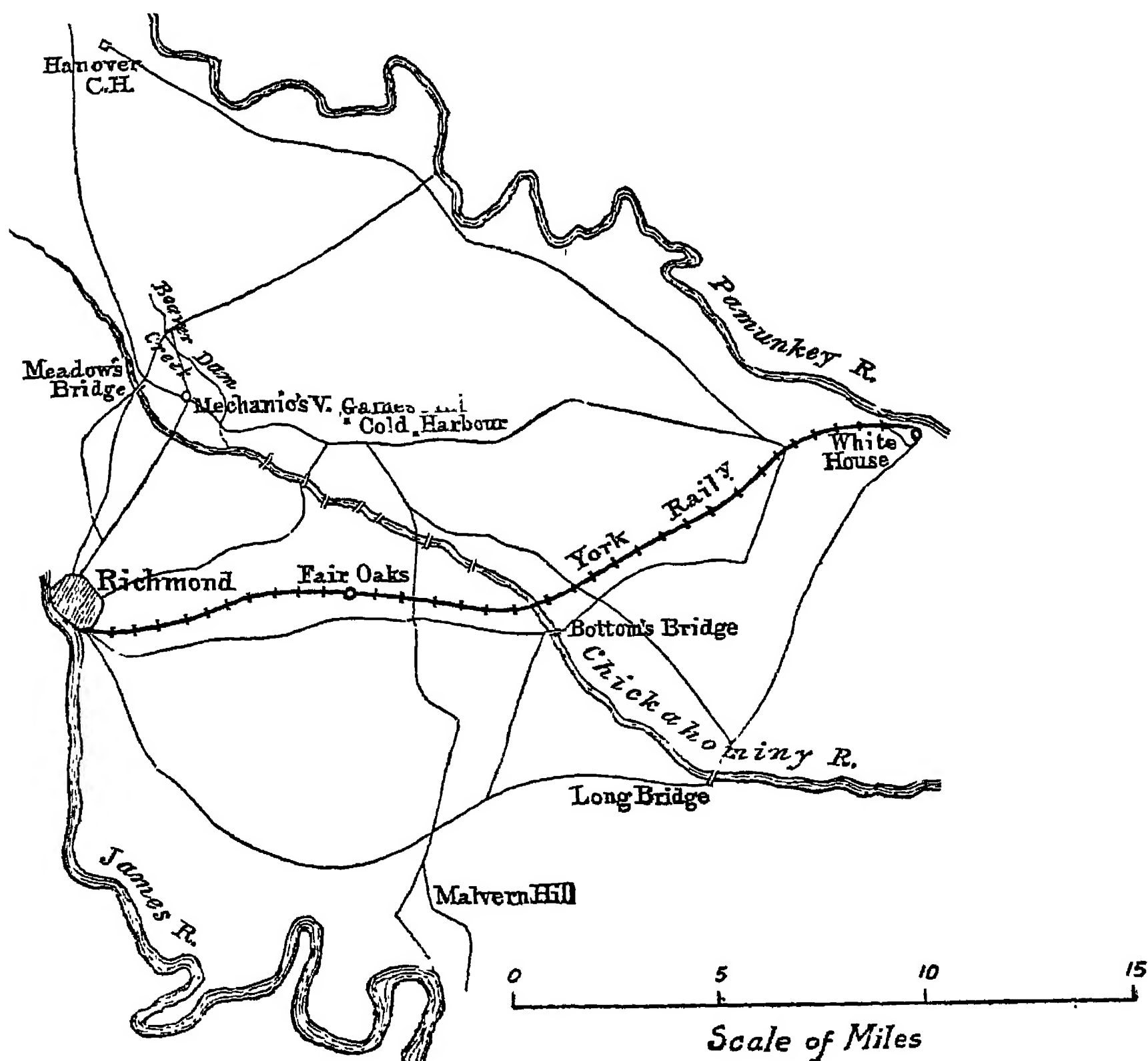
The Federal army advanced from White House to Bottom's Bridge, which had been destroyed; the advanced-guard forded the stream and intrenched itself without opposition. White House to Bottom's Bridge, 10.

The centre and right moved to Mechanicsville, retiring whence, the

Bottom's to
Meadow's
Bridge, 13.

enemy destroyed the bridge, and prepared to oppose the passage from commanding ground. The operations embraced the portion of the river from Bottom's to Meadow's Bridge.

"The entire army," says M'Clellan, "could probably have been thrown across the Chickahominy immediately after our arrival, but this would have left no force on the left bank to guard our communications, or to protect our right and rear."



Fair Oaks to
Bottom's
Bridge, 5.
Federals
astride the
river,

On the 30th May, four Federal divisions were on the right bank, beyond Bottom's Bridge; they were attacked on the 31st in the indecisive battle of Fair Oaks, and kept their hold of the bank.

The nearest supports were two divisions six miles up the stream, which crossed by bridges already thrown, to support the assailed wing.

Having completed his bridges over the stream, M'Clellan intended to cross entirely to the right bank and assail the Confederates before Richmond, on the 26th June. But on that day he was himself attacked.

Jackson approached by Hanover Court-House, and part of the Confederate army before Richmond, which had hitherto fronted M'Clellan, passed the Chickahominy above Meadow's Bridge and at Mechanicsville, to join in the attack on the Federals on the left bank. The advanced-guard of the Federals at Beaver Dam Creek was forced back to Gaines Mill—whence to Cold Harbour a new line was formed by the 5th corps.

27th June.—The 5th corps was attacked. Part of the 6th and 2nd corps crossed from the right to the left bank to support it. Finally the whole Federal right wing, outflanked on its right, was driven over the Chickahominy to the right bank. are attacked on the left bank.

Thus the communications with White House were absolutely lost, and in ordinary circumstances the army would have been ruined. It was in the expectation of such a result that the Confederates had attacked on that side. The army was saved by the fact that M'Clellan had made arrangements previously for transferring his depots by water to the James River; hence the disaster did not entail ruin; and the retreat upon the new base was effected by very resolute fighting. But the example serves to show, that *when an army is astride a river it may be most effectually attacked on the bank nearest its base*, if the hostile forces are already on that bank, or can readily pass to it, and if their own *last* line of retreat is not immediately threatened by the enemy's movements beyond the river. The most effectual counter-movements open to the defender. Reviewing the operations on the Ticino in 1859, it will now be readily seen what an opportunity was open to Giulay had he met M'Mahon's attack with an inferior retarding force, and, massing his troops on the right bank (instead of crossing, as he did, to the left), thrown his whole weight, on the 5th of June, on the side of Novara.

An increase in the width of the river increases in some respects the difficulties of the assailant, by augmenting the difficulty of throwing a bridge; but without materially altering the case. The first requisite for crossing is to establish some troops on the further bank to cover the passage of the rest. And this object will be greatly aided if artillery from the assailant's bank can bring such an effective fire to bear on the defender's infantry, which may seek to overwhelm those Effect of increased width of the stream.

troops, as to keep it at a distance and prevent it from manœuvring, and also crush any batteries which the enemy may attempt to establish to prevent the passage. Thus, under former conditions of artillery, if a river were only two hundred yards wide, a defender's infantry assailing the first troops that passed over would be liable to be cut to pieces by the fire of the guns on the hither bank. But if the river were eight hundred yards wide, not only would the fire on the enemy's infantry at that range be less certain and effective (since neither case-shot from field-guns, nor grape from guns of position, would reach it), but the defender's batteries established at six hundred yards from the river would play effectively on the head of the bridge and the troops covering it, while their distance—fourteen hundred yards—from the assailant's bank would secure them from being overwhelmed by superior fire.

Improved weapons, in this case, favour the assailant.

These conditions have been altered, on the whole, in favour of the assailant, by the improvement in weapons. For though the relations of the opposing batteries might remain unaltered, yet the infantry from the one bank could now bring an effective fire to the aid of their comrades on the other; and thus the largest force—which, by the conditions of the case, it is supposed the assailant would always bring to bear at the point of passage—would prevail. If French troops crossing from Piacenza, and English troops thrown over the Douro at Oporto, in both cases far beyond the range of their comrades' muskets, could by surprise establish themselves and cover the passage, much more would such enterprises be likely to succeed when the first troops should be supported by the fire of the army on the other bank. And another circumstance in favour of the assailant is, that a large river will generally be navigable, and it and its tributaries will in most cases furnish a number of large boats sufficient to throw at once on the opposite bank a force capable of maintaining itself.

Effect of fortified passages.

The possession by the defender of fortresses or bridge-heads giving the command of both sides of a bridge modifies the conditions of passing a river. If they exist on the flanks of a line of operation, it will generally be impossible to pass the river on a flank; for the force attempting the turning movement must pass completely round the fortified passage before it could aid in the attack on another passage not so guarded. Therefore in such a case the passage will be sought on the front of the defensive

line. And if the defender be entirely restricted to the defensive, he will still be probably unable to prevent the passage. The possession of the bridge-head of Mannheim did not prevent the French from crossing the Rhine; and even on the short line of the Mincio the fortresses of Mantua and Peschiera did not prevent the Allies from crossing between them in 1859. Their value to the defensive army will consist principally in the facility and support they would afford to it in assuming the offensive against the enemy on his own bank: and the degree of their influence must depend on their position, a question which will be discussed hereafter in the chapter on Fortresses.

From a review of the chapter, the following deductions may be gathered:—

1. Neither a mountain-chain nor a river affords a permanent line of defence, unless in exceptional circumstances: and for *defensive* purposes it does not balance, in any appreciable degree, the disadvantage of decidedly inferior force. General conclusions.

2. The conclusions formerly arrived at respecting the general questions of turning a flank or breaking a front are only modified, not changed, in the case of the passage of a defended river. For if the defensive line be too extended, it will be best to pass the obstacle on the front; otherwise to turn the flank.

3. In case of turning the flank, the risk incurred by the turning force in case of defeat will be lessened by the river; since, to intercept its retreat, the enemy must cross the river between its point of passage and the point held by the rest of the army, where, it is to be presumed, no ready passage will exist.

4. An army defending a river, on finding its flank turned, does not generally seek to re-establish affairs by itself crossing to the other bank, but rather seeks to concentrate against the part of the enemy that has crossed.

5. Nevertheless such a counter-stroke, when the defender has the means of speedily crossing, may be the most decisive course; and the occasion for dealing it may be the defender's best, though very transient, opportunity.

6. On his own bank, the defender's most effective action will be against the outward flank of the turning force if it advances on a front perpendicular to the river.

7. The best form of counter-attack to adopt, in such cases, will usually depend on the enemy's action. Generally, the most effective course for the defender will be to make careful arrangements to gain timely information of the enemy's movements, meanwhile holding the mass of his forces in hand, conveniently placed, with a view to acting on the principle of "interior lines,"—*i.e.*, delaying the enemy with inferior forces at one point while seeking to overwhelm him with superior forces at another.

8. Lastly—and very important for discussing the subject of the next chapter—in the majority of cases the passage of a river *at* points deliberately defended is difficult, doubtful, and costly to the assailant in men and time.

True uses of
obstacles.

The true uses of obstacles, then, are not, as might at first sight appear, merely to increase the means of passive resistance. Their best effects will be—

To give their possessor increased power of manœuvring offensively, and of taking the enemy at a disadvantage. But their defensive uses are various :—

Defensive uses
of obstacles.

See Map
No. 8.

To cover a flank movement.—Thus, when Lee, after defeating Pope, crossed the Potomac above Harper's Ferry, and pushed his main force towards the Susquehanna (which was, relatively to the Federal army at Washington, a flank movement), he held the passes of the South Mountain with Hill's corps. M'Clellan from Washington attacked the passes with greatly superior numbers, but did not succeed in forcing them till the main Confederate army had retraced its steps and was assembled behind the Antietam, covering its line of retreat.

To afford opportunity for rallying a beaten army—as the Mincio did after Solferino, although found to be unsuitable as a permanent line of defence. The impression which so generally prevails, that it must be a mistake to fight with a river in rear, is a popular error. Provided the passages are assured, and sufficiently numerous in proportion to the force of the army, no circumstance can be more fortunate for a defeated host than the existence of an unfordable river in its rear, at such a distance as to leave full space for the retiring troops to file upon the passages behind their rear-guards. The first effective troops and batteries that pass line

the bank on each side of the bridge, and give time for restoring order. It is only when those passages are inadequate or precarious, or the river too close to the rear of the troops, that the risk of disaster is increased.

To enable part of an army to hold a forward line and protect territory till reinforcements arrive: as the Prussians might have awaited the Russians on the Elbe in 1806; or *to cover a concentration in rear* like Zieten on the Sambre in 1815.

To enable a rear-guard to cover a retreat.

MASSENA'S RETREAT (1811).

(Map No. 13.)

In March 1811, Massena held Santarem with his 2nd corps—the 8th corps was on his right at Pernes and Torres Novas—the 6th corps in reserve at Thomar, with a division under Loison guarding the bank of the Tagus on its left. Example of the use of obstacles to a rear-guard.

Massena had resolved to retreat by the roads of Pombal and Espinhal to Coimbra.

His first move was to march the 6th corps and cavalry, under Ney, to Leiria. This seemed to threaten an attack on Torres Vedras, guarded on the side of the Zizambre by two of Wellington's divisions. Thomar to Leiria, 25.
Leiria to Torres Vedras,

Having sent all encumbrances to the rear, Massena began his retreat on the 5th March—the 2nd corps upon Thomar, the 8th corps on Torres Novas. The bridges on the Alviella stream were destroyed. 52.

6th March.—2nd corps from Thomar on Espinhal.

The rest of the army, including Ney's corps at Leiria, concentrated on Pombal. Thomar to Pombal, 25.

The heads of the British columns followed the 8th corps on Pombal.

The 3rd and 5th English divisions from Torres Vedras on Leiria.

9th March.—Massena assembled for battle in position before Pombal.

An English brigade followed the 2nd corps on Espinhal.

10th March.—Wellington formed to attack; when the enemy retired through Pombal, covered by a rear-guard under Ney on the right bank of the Soure.

In the night Massena regularly organised his retreat. The baggage and sick, protected by the reserve cavalry, were sent in advance—the 8th

corps followed ; the 6th corps, under Ney, covered the movement. "The country," says Napier, "was full of strong positions, the roads hollow and confined by mountains on either hand, and every village formed a defile : the weather also was moderate and favourable to the enemy, and Ney, with a happy mixture of courage and skill, illustrated every league of ground by some signal combination of war."

Pombal to
Redinha, 6.

12th March.—The head of the British column came upon part of Ney's rear-guards (5000) deployed on a height across the fork of the streams; and covering the ford and bridge of the Redinha. Behind him was a narrow bridge and defile ; beyond the stream, on heights commanding his position, was a division of infantry with cavalry and guns.

Rear-guard
forces the
enemy to
deploy.
Redinha to
Condeixa, 12.

Wellington, unable to ascertain the real force of the enemy, formed his army for attack. The reconnaissance and deployment occupied some hours. Ney waited to the last moment—then withdrew his right and centre, covered by his left, through the village, which he set on fire, and over the river. His reserves from the heights on the other bank covered the passage, then the French fell back on Condeixa.

"There is no doubt," says Napier, "that Ney remained a quarter of an hour too long upon his first position ; and Lord Wellington, deceived by the skilful arrangement of his reserve, paid him too much respect."

Condeixa to
Coimbra, 6.

13th.—The British pursued and came on the 6th and 8th corps in order of battle at ten o'clock. Massena, who had intended to pass the Mondego, at Coimbra, found the further bank occupied by Portuguese militia and the bridge destroyed, and resolved to retreat by the Puente de Murcella up the left bank of the Mondego to Guarda and Almeida. To ensure this change of line, he had occupied Fonte Coberta strongly ; and the approach to Condeixa being difficult, he was confident of effecting the operation.

Rear-guard
retards the
enemy till
turned.

F. Coberta to
Miranda, 10.

Wellington detached a division over the hills to his right, to turn the French left. At three in the afternoon it arrived beyond the enemy's flank. Ney, setting fire to Condeixa to impede pursuit, fell back towards Miranda. The British following, cut off from him the divisions at Fonte Coberta on the one side, and opened communications with Coimbra on the other. The French troops at Fonte Coberta marched round the British in the night, and recovered communications at Miranda with the main body.

14th.—The French strongly posted on the heights bordering the left bank of the Deuca, from Miranda downward. Wellington sent a division by the road Panella-Espinhã to unite with the British brigade on the Espinhã road, attack the 2nd corps, and turn the French position by crossing the Deuca. Another division turned the position more immediately, while the division leading the main column attacked in front. Ney held the position until the main column had deployed, and the divisions had turned his flank, then retired through Miranda. Massena, threatened in rear by the British troops on the Espinhã road, burnt Miranda and passed the Ceira, leaving Ney to cover the passage. “His whole army,” says Napier, “was now compressed and crowded in one narrow line between the high sierras and the Mondego, and to lighten the march he destroyed a quantity of ammunition and baggage.”

Rear-guard repeats the manoeuvre.

Miranda to the Alva, 14

15th.—Ney deploying a large force on the left bank of the Ceira, was attacked and driven into the river with heavy loss. He blew up the bridge, however, and continued to guard the right bank, while the main army took post behind the Alva.

Rear-guard suffers for committing itself to an engagement

16th.—The British halted for supplies, and to await the subsidence of the flooded river.

17th.—Wellington crossed by a bridge thrown in the night, and by fords, and found the French behind the Alva with its lower bridges destroyed.

18th.—Three divisions menaced the Upper Alva, two cannonaded the passages below. Massena thereupon concentrated on the Moita ridge, thereby forcing Wellington also to concentrate.

19th.—Massena retreated on Celorico.

Wellington concentrated on the Moita ridge.

These operations will suffice to show the manner in which obstacles aid, and are indeed essential to, the efforts of a retarding force, which opposes a superior enemy, whether as a rear-guard or as a body covering some decisive movement of the rest of the army. Wellington, coming up with Ney (who has about 10,000 against 40,000), must choose between attacking with the head of his column, with certain loss and with uncertain result—for he could not know, except by experience, what force might be in front of him; or deploying his whole army for battle, as at Redinha;

or having recourse to a turning movement: and either of the last two methods cost him half a day in preparation.

On the other hand, the pursuing force, certain of support, operates boldly to a flank, and the retreating army is exposed to the risk of losing troops, either from being cut off by withdrawing too late, as at Fonte Coberta, or from being overwhelmed by superior forces, as on the Ceira.

The difficulties of operating by a single road, and the nature of the operations described in Part IV. Chapter I., are well illustrated by the remarks quoted from Napier.

The latter part of Massena's retreat exemplifies the use which may be made of an obstacle to cover a change of front. The French from Celorico made for the Coa by Guarda and Sabugal. Their position at Guarda threatened the flank of Wellington's line along the Mondego, the head of his column being at Celorico. Had he followed the same road as the French, that of Celorico-Guarda, with his whole army, he might have found his communications endangered; but by taking advantage of the bend of the Mondego, occupying the heights looking on its upper bridges with his right wing, he brought his left round, and changed the direction of his front in security.

Use of a
river to secure
the communi-
cations.

But besides their value to a defensive or retreating army, rivers may be turned to account by an army during its advance, in a very important manner, *by securing the line of communication.*

When an army is operating close to its base, and that base is extensive, it can change the direction of its front, or of its line of operation, freely, without endangering its communications. But as it advances, and increases the distance from its base, its lengthened communications become more and more open to attack. It can no longer change the direction of its front, or of its line of operation, without laying bare some essential communications. It is hampered by the lengthening chain it drags after it; and while the enemy, if near his base, or in his own country, can manœuvre freely on many sides, the advancing army becomes more and more rigid and constrained, till at last, far from thinking of offensive movements, its whole energies are absorbed in covering its precarious communications.

But if, under these circumstances, it can master some defensive line, strong for defence, and create thereon depots of material of all kinds, collected from the surrounding districts, and transferred from its own territory, it has carried its base forward, and recovers its freedom of manœuvre. Such a line is afforded by the course of a considerable river. Important passages on it, commanding many roads, are strengthened—recruits are brought thither from the rear, invalids are sent thither from the army, to occupy the works, and diminish the number of effective men withdrawn from active operations. Henceforth, all the roads between the base and the river will be secure; and the relieved general, restored to full activity, will now be solicitous to preserve only his communications with the river.

Thus, Napoleon in 1813, advancing from the Rhine into Northern Germany, makes a secondary base of the Elbe from Pirna down to the sea. Pivoted thus, and creating a vast depot in Dresden, he directs his movements northward against Berlin, eastward into Silesia, southward into Bohemia, the line to France through Leipsic remaining all the time secure: and it is not till he quits the Elbe that this line is endangered.

Thus, also, Marmont's Army of Portugal, linked to France by the single road of Bayonne, broadens its base by fortifying the Douro from the Esla to Valladolid, and acquires all the latitude of action displayed in the campaign of Salamanca.

When a general, surveying the map of the theatre, finds direct obstacles in the path he must advance by, he sees in them, if he be confident in his own skill in manœuvring, increased opportunities for obtaining strategical successes. And the opposing leader will, or ought to, find them illusory aids, if he attempts to hold them entirely on the defensive. To turn them to account he must make of them successively the pivots of offensive operations, or employ them as a means of temporarily retarding the enemy. In fact, like any other complications in a game, they offer on both sides additional opportunities to skill and talent, and additional embarrassments to incapacity.

CHAPTER IV.

OBSTACLES WHOSE GENERAL DIRECTION IS PARALLEL TO THE PATH
BY WHICH AN ARMY ADVANCES TOWARDS ITS OBJECT.

Mountain-
ranges of this
kind.

WHEN French and Austrian armies moving east and west approach each other on the Po or the Danube, those rivers form obstacles of the kind whose influence is discussed in the present chapter. And while direct obstacles are at once seen to interpose difficulties and delay in the way of an advancing army, the effect of this other class of impediments is by no means obvious, and requires both thought and illustration to render it apparent.

Hazard of ad-
vancing on
both sides of
such an ob-
stacle.

When Massena followed Wellington to the lines of Torres Vedras, the ridge of the Monte Junto divided longitudinally the space between the Tagus and the sea. Had Wellington retreated by both sides of the ridge, his wings would have been separated by the obstacle, and Massena, following by one side only, might have overwhelmed a wing with his whole force before the other could by a circuitous march support it. In the same way had Massena advanced on both sides of the ridge, while Wellington retreated by one, the whole English army might have fallen on a wing of the French.

This ridge, ending at the Zizambre, did not penetrate the lines; Wellington, therefore, could extend behind them across the whole space between the Tagus and the sea. The French, on the other hand, were still cramped by it; and all their interests lying away from the sea, of which England held the dominion, they concentrated between the ridge and the river; and having once elected to do so, they could not pass the ridge to attack on the other side without the risk of being themselves

assailed while in the act of passing, with the head of their columns separated from the rear by a difficult obstacle.

When Massena fell back on Santarem, Wellington followed him, still on that side of the ridge. But when the French halted beyond the northern extremity of the obstacle, while he was still cramped by it, the disadvantage was transferred from them to him, and led, as we have seen, to the dispersion of his army; for while they, from Leiria, could advance directly on Torres Vedras, he, from the Rio Mayor, must make the circuit by Alemquer, in order to reach that point, and it was therefore necessary to leave there troops sufficient to hold the ground till he could arrive. And as the screen of the mountains would enable the French to make their first march undiscovered, their relative proximity to Torres Vedras was thereby increased.

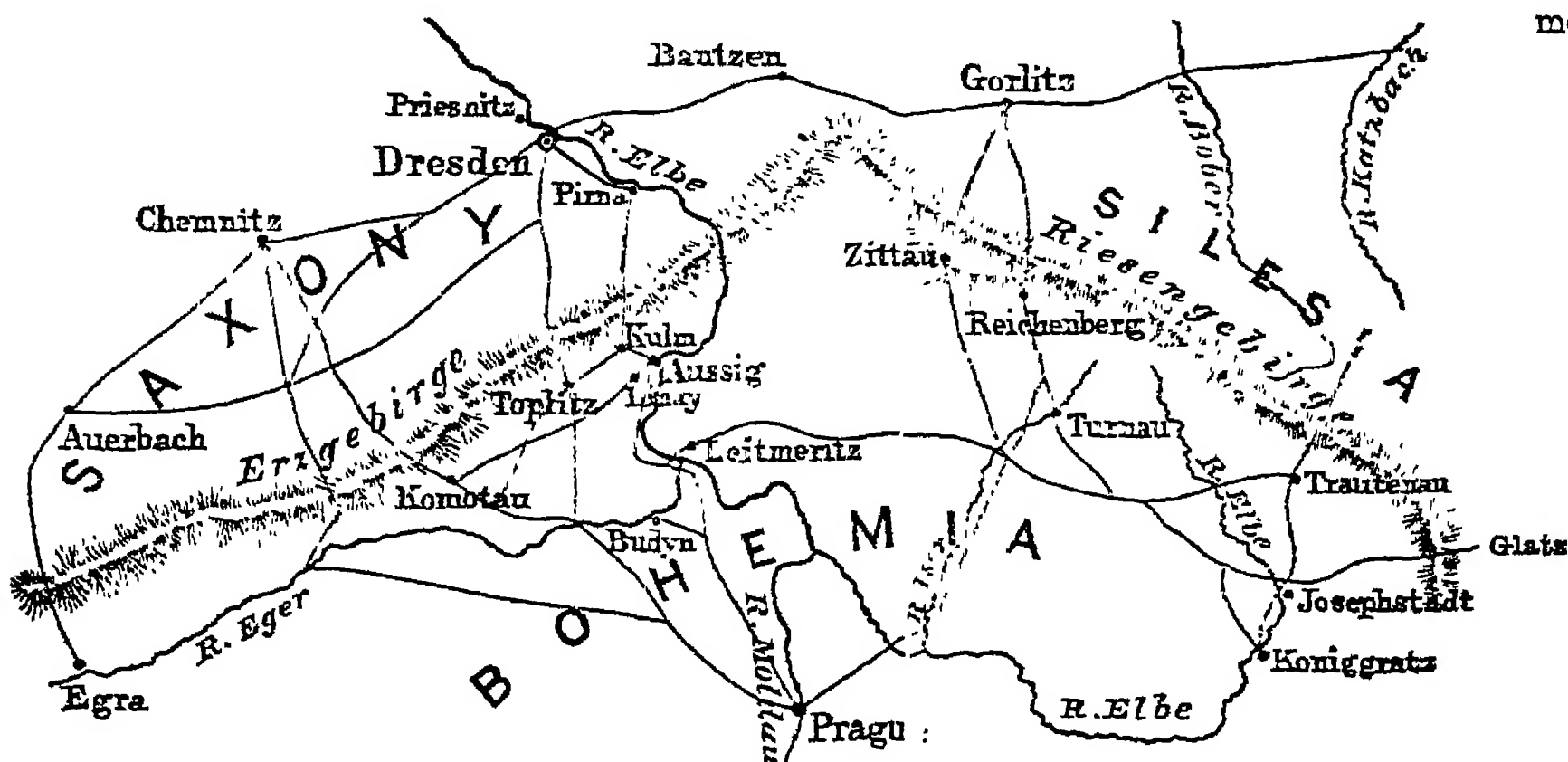
To advance on one side necessitates a detachment in rear.

It may be assumed, therefore, that when, of two armies operating near each other on an obstacle of this kind, one immediately holds a passage over the obstacle, and the other is at a distance from its nearest passage, the former possesses the advantage.

Deduction.

The manner in which an obstacle of this kind may be used as a screen for a movement against the enemy's communications is exemplified in the Leipsic campaign.

Manner in which the obstacle may screen an offensive movement.



Napoleon had advanced from Leipsic through Dresden and Bautzen to the Bober in Silesia, pushing back the Prussians and Russians. During

this march the mountains of Bohemia lay on his right flank. An armistice being agreed on, both parties halted in their positions—the Allies being posted with their left on the mountains west of Glatz, and their right on the Katsbach.

Over the western face of the mountains (the Erzgebirge) there are several passes, and the Elbe there pierces the barrier. Napoleon had occupied the Elbe from Dresden upward to the Bohemian side of the mountains. Between the Elbe and the Allied position only two passes practicable for great operations existed—namely, from Gorlitz by Zittau and Reichenberg—these passes Napoleon occupied.

Gorlitz to
Zittau, 20.

French front
is at a dis-
tance from
its nearest
passage.

Allies com-
mand a neigh-
bouring pas-
sage,

Thus, when the armistice terminated, Napoleon, minus the detachments in his rear, fronted the concentrated forces of the Allies.

They by their position covered a passage from Silesia over the mountains into Bohemia. Leaving Blucher in a strong position to cover the roads to the Oder, by which Russian reinforcements were coming, they marched, with their main body in successive corps, on the 13th and 14th August, traversing Bohemia, crossing the Elbe at Leitmeritz, and aiming at Dresden.

and break out
on Napoleon's
rear.

On the 19th, Napoleon, hearing of the movement, led his detachments from the passes of Zittau and Reichenberg southward; but finding that the Allies were already beyond the Elbe, he left a rear-guard to face Blucher, and marched 80,000 men in three days ninety miles back to Dresden—the Allies, after moving through the four principal defiles, and pressing back the French corps guarding the roadway of the Elbe, being then assembled before the city.

In this also is seen another proof of the assertion in Part III. Chapter IV., which has received so many confirmations in the course of this work, that when armies are aiming at each other's communications, that army whose communications are most immediately threatened abandons the initiative, and conforms to the movement of its adversary. For Napoleon was linked to France by the sole line Dresden-Leipsic-Hanau; and though, when he marched from Zittau into Bohemia on the 19th, he was nearer the road by which the Allies had marched, and by which they communicated with Blucher, than they were to Dresden, yet they were not bound to that road, for, Austria having joined the coalition, they might now base themselves on the Danube by Prague and Budweis.

Napoleon, therefore, not being able to deliver an effectual counter-stroke against their communications, was obliged to interpose for the defence of his own.

We will now turn to the case of *rivers* forming obstacles of the kind in question; and the campaign of 1859 at once affords two simple and forcible illustrations of their influence. Rivers of this kind.

Before the arrival of the French in the theatre of war, the Sardinians held the line of the Dora Baltea, seeking to cover Turin *directly* against the Austrians, then on the Sesia; but by the advice of the French Marshal Canrobert, they relinquished this line, which was weak in the centre, too extensive for their numbers, and liable to be turned on the left by the road of Ivrea, and took post at Casale on the south side of the Po, holding, by garrisons in works on the left bank, the passage of the river. See Map No. 5. Sardinians at Casale check the Austrian advance on Turin.

Under these circumstances, if Giulay should throw his whole force towards Turin, the Sardinians would in a moment, by an advance on the road Casale-Vercelli, sever his communications. He must therefore place a force opposite Casale to guard against this peril, while the heads of his columns pushed upon the capital. But what if this Austrian covering force should be too weak to maintain itself—and not only itself, but the whole line between the Ticino and the head of the columns—against a combined attack of the Sardinians crossing at Casale? In such a case the army would be compromised. Hence it was that Giulay took his steps so cautiously towards Turin, throwing forward successive corps supporting each other, and placing a large force astride of the road Casale-Vercelli; till finally, caution prevailing over enterprise, and French troops appearing in the works of Casale, he relinquished the attempt, and withdrew behind the Sesia.

Shortly afterwards the situation was reversed; for, when the French had joined the Sardinians, the Austrians were thrown on the defensive, and it was manifestly the interest of the Allies to pass the Po beyond the enemy's flank at Piacenza. But the Austrians held, near the junction of the Ticino, a fortified passage over the Po at La Stella, the works on the south bank there forming an intrenched camp capable of holding a large force. Had the French from Voghera passed along the defile of Austrians at La Stella prevent the French from moving on Piacenza.

Stradella aiming at Piacenza, the whole Austrian army might, from La Stella, have burst on their flanks, split them asunder, and overwhelmed all eastward of that point; and this, doubtless, was one potent reason inducing the Emperor to advance by the line, strategically so inferior in importance, Casale-Vercelli-Novara.

Assailant requires greatly superior numbers.

To leave a defended passage of a river of this kind behind, when the defender holds both sides of the bridge, demands, then, a covering force at least equal to the force of the enemy; and moreover, the next passage, which the assailant has just quitted, must, until the enemy's rear is attained, be adequately occupied, lest the enemy should break out upon the rear (as the Allies must have continued to observe Valenza while passing La Stella, and aiming at Piacenza).

Risk of the assailant lessened if the defenders are restricted to one bank.

If the defensive army is restricted to its own bank, or if it is not in condition to cross and fight, the risk incurred by the assailant in marching along the river to break out upon the enemy's rear is proportionally diminished. It will be only necessary to conduct the movement with such secrecy that the assailants shall assemble on the further bank, at the point aimed at, faster than the defenders, so as to avoid the risk of either attempting to force a passage in the face of superior numbers, or of being overwhelmed during the passage by the more rapid concentration of the enemy. Thus, in 1796, the Austrians held the Po from opposite Valenza to Belgiojoso; Napoleon's divisions held the south bank from Valenza to Voghera. He resolved to march down the bank beyond the Austrian front, and pass at Piacenza; and to this end his divisions marched simultaneously in that direction, except that at Valenza, which remained both to detain the Austrians and to cover the communications with Turin from counter-attack. Having succeeded in gaining one march on the enemy, he crossed at Piacenza, in boats, faster than they could arrive there, beat their first troops, and drove them apart; seized the bridge of the Adda at Lodi, and forced the dispersed enemy to seek the shelter of the Mincio. And another instance similar to this has already been cited, in the operations of Moreau against Kray, when he threw his right over the Danube at Blenheim to cut off the Austrians in Ulm. Each of these operations, however, was undertaken against a beaten army, from which a vigorous counter-stroke was little to be feared; but they serve to prove that, in order to turn the river to full account, the defender must be in

complete possession of points of passage, and this will generally be secured by field-works covering both ends of the bridge. Supplementary bridges should also be thrown to facilitate the assembly on either bank. These conditions fulfilled, the position of the defender is such as to compensate for considerable inferiority of numbers.

Hence it is that, as the Archduke tells us, the first care of a general posted on the Danube should be to establish, at the point he occupies, a double bridge-head—that is, a work at each end of the bridge, and ensuring the passage of the army to either bank.

To show the necessity of guarding the communications of an army which is about to cross a river of this kind to attack the enemy, even when that enemy does not hold assured passages, let us take the case of Napoleon and the Archduke in 1809. The Emperor had captured Vienna, and was about to cross at Essling to attack the Archduke, who did not possess a bridge between Ratisbon and Vienna, but only the means of throwing one. Yet during this critical operation, when every French soldier was wanted at the point of attack, Davout was retained with 30,000 men on the right bank between Vienna and Krems, so as to be able to assemble them at either point in one march, and guard the communications with France; while, further back, Linz was guarded by a corps of Wurtembergers, and Passau by another of Saxons, and a strong garrison was kept in Ratisbon. And when Napoleon subsequently withdrew many of these troops to reinforce the main army, he compensated for the want of them by erecting strong works, suitably armed and garrisoned, at all possible points of passage—that is to say, at all points which presented, on each bank, roads suitable for the sustained operations of great armies.

Example of necessity of guarding passages in rear. See Map No. 7.

It might at first appear that, in an extensive theatre, the influence of an obstacle of this kind might be *evaded* by the assailants advancing on a line far distant from it. But the campaign of 1796 in Germany, already detailed, shows the futility of such an attempt. Jourdan, whose march lay a long way from the Danube, was nevertheless compelled in a moment to pause, and then to retreat, by the advance of the Archduke on the line Neuburg-Nuremberg, perpendicular to the French communications.

Influence of the obstacle not to be evaded.

In fact, an obstacle of this kind confers on its possessor all the advantages of the angular base *augmented*, because extending to both sides of

the theatre. It presents a succession of points which must either be directly attacked, or turned under protection of a covering force, and either course demands superior numbers. Of the two kinds of obstacles, rivers are best for defence, because it is much easier to pass troops over bridges than over a path in a chain of mountains, and the army that holds the passage has, therefore, readier means of concentrating on either side of the obstacle, or of maintaining communications between the wings if astride of it; while it is equally serviceable as a screen for movements, and as a means of dividing the enemy.

Supposing, then, an Austrian army in a war with France to have advanced up the Danube to Ulm, a French army, aiming at Vienna, must either drive the Austrians from Ulm, or, passing that place, must cover its march with a force capable of dealing with the whole Austrian army. Should it, without such protection, continue to advance eastward, the Austrians, descending perpendicularly on its line of communication with France, would force it to form front to a flank. If the French were defeated in this way on the side of Munich, they would be driven on the Tyrol—if on the side of Nuremberg, they would be driven on the Maine; while in either case the Austrians, if defeated, would obtain shelter behind the Danube. And if the French army should hold the river down to Ratisbon, the case would be reversed in its favour, for the Austrians could not pass westward beyond the Isar on one side nor Bayreuth on the other.

Consequent
importance of
the Danube,

We may now understand what the Archduke Charles meant when he said, "The history of the wars of Southern Germany, since the conquest by the Romans to the nineteenth century, furnishes a thousand proofs of this maxim, that the valley of the Danube is the key to the country. In all times its banks have been struggled for, and the issue of these great conflicts has always been to the advantage of the side that mastered them."

but only a
certain por-
tion of it.

But he expressly limits the influential portion of the river to the space between Ulm and Ratisbon; and the reason is that, above and below, the country does not afford roads by which to operate on both banks, and is unfit, from its nature, for the manœuvres of great armies. Were an Austrian army posted on the Danube above Ulm, the French from the Rhine, blocking the defiles of the Black Forest, might pass round it to Ulm. In fact, the mountains, with their defiles, would neutralise the influence

of the river; and below Ratisbon, down to Passau, the difficulties of the Bohemian mountains, and the absence of passages, would render the possession of the river of small value.

It might happen that the French would hold one part of the river, the Austrians the other. The French might be at Neuburg, the Austrians at Ingolstadt. If the French wished to advance, they must either pass by the passage of Ingolstadt or force it. The risk of passing it by has been discussed. If the French advanced to attack it by both banks, the Austrians, concentrating on one, and holding the passage with a containing force, would throw their weight on a portion of the French. If the French advanced altogether on one bank, the Austrians, if too weak to accept battle uncovered, might concentrate on the other, still maintaining their communications with Ratisbon; thus the enemy must force a passage at a known point. For example, in 1796, the Archduke charged Latour, if he were pressed by Moreau, to cross the Danube. And even supposing the opposite bank to that on which the French were advancing should not be defensible at that point, yet the course of the river would be certain to supply ground suitable for the purpose; for in order to be indefensible, it must be commanded by the opposite bank, and devoid of all advantages for disputing the passage. If the banks were of equal command on both sides, or level on both sides—or if the Austrian bank, though the lower, afforded good points of defence—or if, on that bank, a good position existed within cannon-shot of the bridge—the enemy must attack at a disadvantage. One or other of these conditions would exist in the great majority of cases; and points of passage where these conditions did not exist, if not capable of being rendered available by fortifications, need not be included in the system of defence.

Since, then, either to force a passage, or to pass it by, demands superior forces, we find that the advantages of a line of defence of this kind are such as to compensate for considerable inferiority of numbers; but that these advantages are *entirely on the side that holds the defensive, and to profit by them, an army must take position near a point of passage, and await the movements of its adversary.*

Case of armies each holding a portion of the river.

The army that advances offers an advantage to its adversary.

CHAPTER V.

CASE OF TWO OR MORE CONVERGENT RIVERS WHOSE GENERAL COURSE IS PARALLEL TO THE PATH BY WHICH AN ARMY ADVANCES TOWARDS ITS OBJECT.—CAMPAIGN OF 1814 IN CHAMPAGNE.

(Map No. 14.)

GREAT additional complexity is introduced into the question of the influence of rivers of this class, when two or more flow in the same general direction and converge.

If the operations lie altogether on the *outward* bank of one of two such rivers, the other river loses all immediate importance. Thus the Isar would have no influence on a campaign north of the Danube.

Conditions
under which
an army ad-
vances in this
case.

But it may happen that the most direct routes lie *between* such rivers; and moreover, in the various windings of the streams, pass from one bank to the other. In this case an army, advancing by these routes, must sometimes be under the necessity of forcing the passage at a known point. And while moving on the *inner* bank of one river, it will be exposed in flank to the direct attack of an enemy who makes the other river the pivot of his stroke. Thus one great road to Paris from the east passes to the south bank of the Marne at Chalons, and repasses to the north bank at Trilport. And another road, also from the east, passes the Aube at Dolancourt, crosses to the south bank of the Seine at Troyes, and repasses to the north bank at Nogent. An army moving from Chalons to Trilport exposes a flank to the attack of an enemy posted on the Seine; an army moving from Chaumont to Dolancourt exposes a flank to the attack of an enemy posted on the Upper Marne at St Dizier; and on again emerging into the space between the rivers at Nogent, it is exposed to the attack of an enemy pivoting on the lower Marne. The ensuing narrative of

operations will give the reader an illustration of what is perhaps the most complex problem which a theatre of war can present.

CAMPAIGN OF 1814 IN CHAMPAGNE.

After the battle of Leipsic, Napoleon retreated to France by way of Frankfort and Mayence, leaving garrisons in many fortresses in Germany (where they were lost to him), in Holland, and on the Belgian and German frontiers of France.

The Allied army of Bohemia, under Schwartzenberg, approached the Rhine at Basle.

The army of Silesia, under Blucher, approached the Rhine at Coblenz, Mayence, and Mannheim. Basle to Coblenz, 220.

Two corps, Prussian and Russian, under Bulow and Winzingerode, in a series of operations expelled the French from Holland.

Blucher wished the united armies of the Allies to cross the Rhine between Mayence and Coblenz. If the fortresses of the Moselle should prove to be weakly garrisoned, he proposed to take them—if strong, to observe them; and then to march by this, the shortest, line to Paris, returning if necessary, after overthrowing Napoleon, to capture the strong places. Prussian plan of invasion.

The Austrians wished to turn the line of fortresses which guarded Paris from the east, by advancing from Switzerland. They argued that the investment of the great fortresses, by withdrawing so many detachments superior in number to the garrisons, would tell against the Allies. Moreover, they wished, by operating from Switzerland, to separate Napoleon from his army in Italy. Therefore the Austrians followed this route; and Blucher moved on the intermediate line of the Moselle to connect the main army with the Allied corps in Holland. Austrian plan.

ARMY OF BOHEMIA,

Allied forces.

Commanded by Schwartzenberg—Radetzky, Chief of the Staff.

Corps 1	.	.	Austrian	.	.	.	General Collredo.
" 2	.	.	Austrian	.	.	.	Louis Lichtenstein.
" 3	.	.	Austrian	.	.	.	Giulay.
" 4	.	.	Wurtemberg	.	.	.	Prince of Wurtemberg.
" 5	.	.	Austrian and Bavarian	.	.	.	Wrede.
" 6	.	.	Russian	.	.	.	Wittgenstein.

Two light divisions under Bubna and Maurice Lichtenstein.

In all—95,000 infantry.

21,000 cavalry.

468 guns.

ARMY OF SILESIA,						
Commanded by Blucher—Gneisenau, Chief of the Staff.						
Corps 1	.	.	.	Prussian	.	York.
" 2	.	.	.	Prussian	.	Kleist.
" 8	.	.	.	Russian	}	Langeron.
" 9	.	.	.	Russian		
" 10	.	.	.	Russian		
Cavalry	.	.	.	Russian		
Corps 6	.	.	.	Russian	}	Sacken.
" 11	.	.	.	Russian		
Cavalry	.	.	.	Russian		
In all—69,000 infantry.						
19,000 cavalry.						
478 guns.						

French forces. To oppose these Napoleon had the corps of Ney, Marmont, Victor, and Macdonald, and the Imperial Guard under Mortier and Oudinot; at the outset, about 70,000 infantry, and 17,000 cavalry, with a great number of guns with which to meet the heads of the Allied columns; and throughout the campaign he was constantly reinforced from reserves at Paris, and from the Pyrenees. On the other hand, Schwartzenberg had a reserve of 50,000 men at Basle under Barclay de Tolly.

The Vosges Mountains extend parallel to the Rhine, separating its basin from that of the Moselle, and fall back at an angle opposite Basle. From thence southward the barrier is taken up by the Jura.

The space between the extremities of these ranges is known as the Gap of Belfort, which gives admission to the valley of the Rhone, the only obstacles being the weak places, Belfort, Blamont, &c. Thence the road to Paris leads over the Morvan range into the valley of the Seine at Langres.

First dispositions of Napoleon. At the appearance of the Allies on the Rhine, Napoleon, notwithstanding the inferiority of his numbers, extended his troops near the frontiers on a wide arc of defence. He argued that the Austrians must leave many men before the fortresses, and it would therefore be possible to close against them the great roads from Alsace; that Blucher also would invest so many places that Marmont could retard him and fall on his left if he should attack Macdonald, whose corps was on the lower Meuse.

Langres to Nancy, 70. Therefore Mortier was to bar the road by Langres, Ney by Nancy—Victor was to hold the Vosges Mountains against Schwartzenberg.

Marmont was to oppose Blucher.

Macdonald to hold Belgium.

Augereau to hold Lyons—thus communicating with the army of Italy, and those of Soult and Suchet in the Pyrenees—and was to watch for an opportunity of operating by the Rhone valley against Schwartzenberg's communications.

Schwartzenberg's Movements.—Obviously the Gap of Belfort was the point where, by turning both the Vosges and the Jura, it was easiest to pass. The mass of the army of Bohemia therefore passed there. But to secure the flanks, corps were pushed out to the right to invest the fortresses in Alsace (Strasbourg, Kehl, Colmar, &c.), to the left to oppose Augereau and to invest Dijon, Besançon, Auxerre, Belfort, &c. Advance of the Allies.

Giulay's corps moved on Langres, driving back Mortier.

Wrede turned Victor's right in the Vosges, and moved on Neufchateau. Wurtemberg up the Moselle to Epinal.

Wittgenstein on Nancy.

In the middle of January, Giulay from Langres, in line with Wrede at Neufchateau and Wurtemberg from Epinal, together pushed Mortier back on Bar-sur-Aube, and thence through Vandœuvres to Troyes.

25th January.—Giulay occupied Bar.

Wurtemberg on his right.

Wrede between Chaumont and Joinville.

Sacken (left of Blucher's army), Joinville.

On the French side, Victor had retired from the Vosges and joined Ney at Nancy. Marmont, retreating before Blucher through Metz, had joined the other Marshals at Nancy; the three had retired from thence upon St Dizier; attacked there by Sacken, and turned by the road from Joinville, they fell back to Vitry. Bar to Joinville, 28.

The French fortresses left in Blucher's rear were blockaded:—Mayence by the troops of Saxe-Coburg; Luxembourg and Thionville by Hessians; Metz by a Prussian division; and, until the arrival of the Hessian and Saxe-Coburg forces, they were watched by Prussian cavalry. French retreat beyond the Meuse.

Meanwhile Winzingerode had passed the Rhine at Dusseldorf, and Macdonald, observing Blucher, had retired up the Meuse by Liege and Mezières towards Chalons. Coblentz to Dusseldorf, 5.

Winzingerode halted at Namur, but subsequently resumed his march by Avesnes on Laon. For the present he need not be taken into account.

Junction of
the Allies on
the Marne.

Such were the movements that preceded the junction of Blucher's left with Schwartzenberg's right on the Marne, and the assembly of the French corps on the arc of which Paris is the centre, and the rivers Seine, Aube, and Marne (and later the Aisne) are the radii. With this position of affairs the problem under investigation, of the influence of convergent rivers, commences.

Description of
the theatre.

The district east of Paris, known topographically as the basin of the Seine, is bounded east, north, and south by hill-ranges. Three streams take their rise in the eastern range—the Seine, the Aube, and the Marne—and along their banks lie the great direct roads from the Rhine frontier to Paris. These rivers, though of no great width, averaging fifty yards, are deep, and generally impassable except at the bridges. These bridges were now barricaded, and important passages on the main lines, as Troyes and Nogent, Chalons and Meaux, were rendered secure against a sudden attack.

The country about these rivers is quite unenclosed. Great fields, without fence or division, extend across the spaces between them. The roads are few; the open country would permit troops to move freely in all directions, and to deploy for battle, in dry weather; but in this winter season the cultivated ground, and the swamps bordering the small streams, would prevent this, and restrict the columns frequently to the roads. Only the great chaussées were suited to sustained operations. The cross-roads were of bad quality, and in many parts waggon-trains could only move on them with difficulty.

Allies still
operate on a
double line.

In this theatre Napoleon now prepared to oppose a single line of defence to a double line of invasion, for Schwartzenberg was bound to the line Langres-Basle by the necessity of keeping open his communications with the troops investing the fortresses; Blucher to the line Chalons-Mayence, to maintain his communications with Belgium and the Rhine.

Napoleon's
general plan.

The Emperor's general plan was to hold the bridges on each side with his wings, and with the main body to manoeuvre between them, casting his weight on each adversary alternately, while the other wing, aided by the river, contained the other hostile army. And foreseeing that these move-

French com-
munications.

ments from side to side would be frequent, he established his line of main supply on the central road, between the rivers, of La Ferté-sous-Jouarre-Sezanne-Arcis, and ordered those and other points to be fortified sufficiently to secure them against a rush of Cossacks.

25th January.—Napoleon went to Chalons to commence operations. Paris to Chalons, 100.
 Imagining Blucher's different corps to be scattered on the march, he resolved to unite the corps on the Marne at Vitry, and leaving Marmont at St Dizier, and Macdonald then approaching Chalons, to bar the passage of the Marne against Blucher, to turn himself by Joinville on Chaumont, calling up his right wing to him from Troyes and Arcis, and falling on the head of Schwartzberg's columns.

Accordingly he moved from Vitry with 35,000 men on the 26th.

Vitry to St Dizier, 18.

27th.—He drove a Prussian detachment from St Dizier.

But Blucher on the same day, leaving his right in St Dizier, was moving to join Schwartzberg on the Aube, and was crossing the space between the Marne and Aube with 30,000 men of Sacken's command and part of Tanguer's. Learning this at St Dizier, Napoleon turned to pursue Blucher, in the hope of intercepting him before he could be supported by Schwartzberg.

St Dizier to Joinville, 17.
 Joinville to Brienne, 30.

28th.—Sending Marmont along the highroad by Joinville to Brienne, he moved with Ney and Victor, by Vassy, on Montierender across a difficult country, at the same time sending orders to Mortier, then at Troyes, to remain on the Aube.

Napoleon pivots on the Marne, to strike the flank of the enemy moving between the rivers.

29th.—He debouched into the valley of the Aube, near Brienne.

Blucher, from Bar, had hastened down the Aube to cut Mortier from Napoleon, and crush him singly; but learning Napoleon's advance, he retraced his steps in time to reach Brienne. Here Napoleon attacked him, and after an indecisive action Blucher retired along the road to Bar.

Blucher evades him by retreating

Napoleon was now within easy distance of his wings at Chalons and Troyes. With the latter point he was connected by Gerard's division at Piney. Joining Mortier he would have 80,000 men to meet Schwartzberg—joining Macdonald he would have 55,000 against the Prussian forces on the Marne, which he considered nearly sufficient. Posting his own troops across the roads from Bar and from Joinville to Brienne, and joined at Morvilliers by Marmont from Joinville, he awaited events, his right on the Aube, at Dienville, his left at Morvilliers.

Brienne to Troyes, 25.
 Brienne to Chalons, 47.

Blucher had halted at Trannes, a few miles from Brienne. Schwartzberg's leading corps reinforced him.

Battle of La Rothière,

1st February.—The main body of the Allies advanced by the right bank

of the Aube upon Napoleon, sending a strong detachment on the left bank to turn his right, and another beyond the Joinville road to turn his left. Napoleon would now have moved on Troyes, joining with Mortier; but seeing the main body of the enemy approaching, he judged that he could not pass the river without fighting, and stood to receive them. Nearly treble his numbers on the field, they broke his centre and captured a great part of his artillery, though his right held fast at the bridge of Dienville. During the night he fell back through Brienne to Lesmont, and passed the river, covered by Ney's corps on the right bank, by Mortier on the left bank, and by Marmont, who, retiring from Morvilliers, had taken post on the Voire. The enemy at first imagined Marmont's corps to be the main army, and sent Wrede's corps to attack it; but the French Marshal, retiring over the Voire, defended the passage, inflicting considerable loss on the enemy, and made good his retreat to Arcis, where he could, according to circumstances, defend the Aube or join Napoleon at Troyes.

2nd February.—Macdonald at Chalons was attacked by the corps of York from Metz.

Schwartz-
berg advances
on the Seine
and Yonne.

Troyes to
Sens, 44.

The main body of the Allies was now directed by the roads of Vandœuvres and Piney on Troyes. On the left, two corps, Giulay's and Colloredo's, moved on Villeneuve-l'Archevêque and Sens, to compel Napoleon to evacuate Troyes, and to secure the Yonne.

Blucher re-
turns to the
Marne.

3rd February.—Blucher, as Napoleon had foreseen, had many reasons for wishing to return to the Marne. York's corps was now at Chalons, and Kleist's and part of Langeron's were moving thither from Metz; joining these he would have near 60,000 men with which to operate independently, and might be the first to enter Paris. By moving thither at once he might cut off Macdonald's direct retreat, and drive him on Epernay. Therefore, and because, also, his impatient spirit rendered him dissatisfied with the slowness and circumspection of his associate general, he led the troops which he had brought from the Marne to Brienne, across by Rosnay, St Ouen, and Fère Champenoise, to the road Chalons-Montmirail, sending Sacken towards Montmirail.

French left
wing retreats.

5th February.—Macdonald, after destroying the bridge, evacuated Chalons, retreating on Epernay.

York pursued Macdonald to Chateau-Thierry. Macdonald destroyed the bridge after crossing.

Sacken moved by Montmirail on La Ferté-sous-Jouarre, and the rest of Blucher's troops from Fère Champenoise, followed towards Champaubert, while Kleist and Langeron were near Chalons.

Thus the army of Silesia was spread in lengthened columns along the inner bank of the Marne.

Napoleon hesitated whether to fall on Blucher, or Giulay and Colloredo. He made a false attack from Troyes on the main body, to ascertain their movements; and repulsed a counter-attack on the bridge.

6th February.—Having resolved to strike at Blucher, he and Marmont (from Arcis) joined at Nogent. Mortier remained at Troyes to cover the movement.

7th February.—Marmont to Sezanne—Mortier, with the Guard, to Nogent—Victor's corps, and Oudinot's division of the Guard, to hold the bend of the Seine from Nogent to Bray.

8th February.—Ney's corps followed Marmont.

9th February.—Napoleon followed with Mortier's division of the Guard—in all, 30,000. Blucher had sent some Cossack regiments to occupy Sezanne—these were driven out and retreated on Sacken.

On this day Blucher's corps were thus situated:—

York	18,000, Chateau-Thierry.
Sacken	20,000, { Between Montmirail and La Ferté-sous-Jouarre.
Olsuvieff (of Langeron's command)	4,500, Champaubert.
Blucher with 2 corps, Kleist and Langeron	15,000, Vertus (from Chalons and Vitry).

10th February.—Macdonald was at Meaux. Napoleon, from Sezanne, fell on Olsuvieff, who did not know of the expulsion of the Cossacks, and destroyed his corps. Leaving Marmont to oppose Blucher on the side of Etoges, he turned with Ney and the Guard to follow Sacken, passing through Montmirail to the junction of the roads from Chateau-Thierry and La Ferté-sous-Jouarre.

11th February.—Sacken, who had pursued Macdonald's rear-guard to Trilport, and destroyed the bridge there, warned of Napoleon's approach, and sending to apprise York, moved on Montmirail; York, who had restored the bridge, holding Chateau-Thierry, sent part of his corps to co-operate with Sacken. Napoleon defeated them with very heavy loss, and drove them on Chateau-Thierry.

Blucher's
army ad-
vances be-
tween the
rivers.

Chalons to
C.-Thierry,
50.

Troyes to
Nogent, 32.
Nogent to
Sezanne, 20.

Napoleon,
pivoting on
the Seine,
attacks
Blucher's
flank,

pierces it at
Champaubert,
turns on the
separated
corps of the
enemy,

and routs
them at
Montmirail;
Sezanne to
Champaubert
13.

Champaubert
to Mont-
mirail, 13.

Montmirail
to Chateau-
Thierry, 16.
Meaux to
Guignes, 24 ;

then returns
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Army of the
North enters
the theatre.

Schwartz-
enberg pushes
back the
French right
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Napoleon
joins the right
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Schwartz-
enberg retreats.

Nangis to
Nogent, 24.
Nangis to
Montereau,
16.

12th February.—Pursuing them, he drove them beyond the Marne. In retreating they destroyed the bridge.

12th and 13th February.—The bridge was repaired.

Mortier passed it to pursue York and Sacken, who were retiring on Chalons by the circuit of Fismes and Rheims, there being no direct road. Macdonald from Meaux was sent by Guignes to reinforce Victor.

Blucher advanced on Montmirail.

Schwartzenberg attacked the bridges of the Seine.

14th February.—Napoleon joined Marmont, attacked Blucher at Vau-champs, and drove him, with severe loss, half-way back to Chalons. Leaving the pursuit to Marmont, he returned to join Victor and Oudinot.¹ These Marshals, far outnumbered and turned on the side of Fontainebleau, had fallen back on a strong position behind the Yères, where Macdonald joined them.

This day Winzingerode entered Soissons, expecting to join Blucher at Chateau-Thierry.

16th February.—Army of Bohemia was thus situated after passing the Seine :—

Advanced-guard at Mormant.
Wittgenstein at Nangis.
Wrede at Donnemarie.
Wurtembergers at Montereau.
Giulay at Pont-sur-Yonne.
Colloredo at Fontainebleau.
Reserves at Sens and Nogent.

Napoleon had hesitated whether to fall on Schwartzenberg's flank by Sezanne, or to march round by Meaux and Guignes to join the Marshals on the Yères. The alarm of the Parisians at the approach of the Allies caused him to decide for the latter course.

17th February.—Advancing from the Yères, he drove the advanced-guard of the Allies from Mormant on Nangis, and Wittgenstein and Wrede retreated to the left bank of the Seine.

Oudinot was directed on Nogent.
Macdonald " " Bray.
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¹ Clausewitz considered that Napoleon would have done better to have followed up his success against Blucher, driving him across the Rhine, instead of turning against Schwartzenberg at this juncture. Had he done so, Schwartzenberg would probably have fallen back to the Rhine.—Clausewitz 'On War,' vol. i. p. 73.

The Allies held the bridges long enough to cover Colloredo's retreat to the right bank of the Yonne.

18th February.—Napoleon forced the passage at Montereau (where the right bank, on which the Wurtembergers stood to fight, greatly commands the left), driving the defenders over the river and through the town. Oudinot and Macdonald, relinquishing the attacks on Bray and Nogent, where they had failed to force a passage, fled through Montereau.

18th to 23rd.—Napoleon had now been reinforced to 70,000, not counting Mortier and Marmont. Schwartzberg, with 100,000 less concentrated, did not think it prudent to meet him. He fell back towards Troyes.

Meanwhile York and Sacken had rejoined Blucher at Chalons by Rheims. On the 18th, Blucher, from Chalons, moved with 50,000 men on Arcis. Finding that Schwartzberg was retreating before Napoleon, Blucher occupied the bridge and town of Mery-on-the-Seine. Napoleon, sending Oudinot to attack him and to secure his flank at Mery, followed Schwartzberg, who retreated by Bar towards Chaumont.

24th.—Napoleon entered Troyes. The Allies now resolved to call up from Bernadotte's Army of the North the corps of Bulow, by Laon, to Soissons. Winzingerode was at Rheims. Blucher, to join them, to draw Napoleon from the pursuit of Schwartzberg, and to seek an opportunity of attacking Mortier and Marmont, moved towards Sezanne, breaking the bridges of Plancy and Arcis.

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Mortier at La Ferté-sous-Jouarre ;

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25th.—Marmont, from Sezanne, retreated before Blucher, by La Ferté-Gaucher, and joined Mortier on the 26th. Napoleon quitting Troyes, and leaving a force once more to oppose Schwartzberg, moved by Sezanne to attack Blucher.

27th Feb.—Blucher, on the left bank of the Marne, holding the bridge at La Ferté with his right, threw his left forward to cross at Trilport, and cut the Marshals from Paris. But the Marshals reached Meaux before him, and held the line of the Marne and Ourcq from Meaux to Lisy, holding the bridge at Trilport with a brigade.

Meanwhile the Allies in council at Vandœuvres, feeling all the difficulties of the situation, had formed a new plan. The Grand Army was to

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remain in observation in the centre, throwing out a wing towards Lyons and securing the line to the Rhine; while the Army of Silesia, considered as the other wing, and reinforced by Bulow and Winzingerode, was to take the offensive on the side of the Marne.

The Marshals Oudinot and Macdonald, commanding the containing force, pushed Schwartzenberg's rear-guards over the Aube.

Napoleon,
pivoting on
the Seine, ad-
vances to at-
tack Blucher.

28th Feb.—Napoleon was at Sezanne. He might advance from thence either by Montmirail and Chateau-Thierry, separating Blucher from Bulow and Winzingerode, or towards the Marshals, so as to cover Paris. He moved on La Ferté-sous-Jouarre.

Sezanne to
La Ferté-sous-
Jouarre, 33.

Blucher, who had crossed at La Ferté, at Napoleon's approach destroyed the bridge there, and continued to press the Marshals on the Ourcq, sending Sacken, supported by Langeron, to attack Meaux, and York followed by Kleist to Lisy.

Chateau-
Thierry to
Fismes, 25.

2nd and 3rd March.—Napoleon having thrown a bridge, crossed at La Ferté, and moved on Chateau-Thierry. Blucher, thus menaced, retreated by cross-roads up the Ourcq to Oulchy, for the Aisne, followed by the Marshals. Napoleon marched from Chateau-Thierry on Fismes—the Marshals from Oulchy on Soissons,—but were too late to intercept the enemy. Knowing, however, that Soissons was held by a French garrison, he hoped to overtake the Army of Silesia and bring it to action before it could bridge the Aisne. But the commandant of Soissons, threatened on the north bank by Bulow, who had just come from Laon, and on the south side by Winzingerode from Rheims, opened his gates. Blucher crossed the Aisne, barred the passage to Napoleon, and received the large reinforcements of Bulow and Winzingerode, who, meanwhile, had bridged the Aisne at Vailly.

Blucher
crosses the
Aisne.

Thus the Army of Silesia had evaded the blow he hoped to inflict, and was stronger than before. But it was beyond the Aisne; it was separated from its proper line of Chalons; and was at a great distance from the Army of Bohemia. Barring the Aisne against Blucher, and descending on Schwartzenberg's rear by Rheims and Chalons, the situation was still advantageous. But Napoleon wished to inflict some decisive blow on Blucher, and resolved to cross the Aisne and attack him—55,000 against 90,000.

Napoleon
follows him.

5th March.—Napoleon seized the bridge of Berry-au-Bac, and crossed

there with Victor, Ney, and the Guard, leaving Marmont before Soissons, and sending a detachment to Rheims.

6th March.—Blucher, watching the enemy from the heights of Craonne (part of a line of high wooded country that extends from Soissons along the Lette to the Rheims-Laon road), resolved to move his army behind the Lette, across the road from Rheims to Laon, covering the movement with the Russian troops on the heights of Craonne.

Napoleon pushed out Victor and Ney towards the position of the Russians, and ineffectually assailed it.

7th March.—Napoleon, reinforcing the two Marshals with the Guard (Marmont still on the left bank), attacked the Russians, and after a very severe conflict they were ordered by Blucher to retire, in order to concentrate round Laon. The Allied garrison of Soissons was also withdrawn.

Battle of
Craonne.

8th March.—Napoleon moved across the heights to the Soissons-Laon road, sending Marmont from Berry-au-Bac on the direct road to Laon.

Soissons to
Laon, 20.

9th March.—Napoleon attacked Blucher round Laon. This town stands on a remarkable hill rising abruptly from the plain to a height of 100 yards, with steep sides, and having villages, or faubourgs, around its base. The position is extremely strong for defence. Napoleon sought to dislodge his enemy by directing his attacks on the space between the roads of Soissons and La Fère, while Marmont threw his right forward on that of Avesnes.

Battle of
Laon.

In the night, Blucher, passing corps from right to left behind Laon, fell upon Marmont, and drove him, with the loss of his artillery, back through the hills on the Rheims road.

10th March.—Blucher's right attacked Napoleon. After hard fighting the French fell back on Soissons, Marmont taking post at Berry-au-Bac.

Napoleon re-
treats beyond
the Aisne.

12th March.—Napoleon at Soissons having heard that the last of Blucher's corps from the Rhine (St Priest's) had just arrived at Rheims, ordered Marmont to leave a force to guard the passage at Berry-au-Bac, and make a night march with the rest of his corps on Rheims. Leaving a garrison in Soissons, he also marched thither himself.

Soissons to
Rheims, 31.

13th March.—Napoleon and Marmont enveloped St Priest's corps, took several thousand, and dispersed the rest. Holding Soissons and Berry-au-Bac, he paused at Rheims till the 17th, to rest his troops and to organise his new levies.

Rheims to
Chalons, 26.

Schwartz-
berg pushes
back the
French right
wing.

Napoleon
from the
Marne strikes
at Schwart-
zenberg's rear.

Meanwhile Schwartzberg, aware of his absence, had on the 27th February once more advanced, driving Mortier and Macdonald through Troyes to Nogent, Bray, and Montereau. The Army of Bohemia followed, and the heads of its columns occupied the opposite bank.

17th March.—Napoleon moved towards Schwartzberg, Ney on Chalons, main body on Epernay.

Mortier was left at Rheims.

Marmont at Berry-au-Bac.

Schwartzberg having passed the Seine had advanced to Provins.

18th March.—Napoleon from Epernay by Fère Champenoise.

Schwartzberg hearing of his presence at Chalons had begun to retreat.

19th March.—Napoleon crossed the Aube, at Plancy, directing Ney, then on the march from Chalons, on Arcis. He called up Oudinot and Macdonald by Provins, Villenoxe, Anglure, along the right bank to Plancy. Thus, as soon as the movements were completed, with his centre and right wing united, he would be ready to move against Schwartzberg's rear.

20th March.—Napoleon with the cavalry moved up the left bank to Arcis; and hearing from the cavalry advanced-guards that the Allied troops were moving between the Seine and Aube, he called Ney across, and sent the cavalry against them.

Battle of
Arcis.

Troyes to
Arcis, 18.

Napoleon's
new plan.

But Schwartzberg, who had united his army about Troyes, was moving between the rivers with 90,000 men, and advanced upon Arcis. Napoleon was forced to fight with very inferior numbers, held his ground during the day, but fell back next day over the Aube.

He had long revolved a project for uniting his immediate forces with the garrisons of the frontier forces on the upper Marne, and pivoted on Metz, descending with a united army of above 100,000, on Schwartzberg's rear, and finally uniting with the corps at Lyons for a great combined movement to drive the Allies beyond the Rhine. He had already, while operating on the Aisne, sent orders to the garrisons on the Belgian frontier, on the Meuse, in the Ardennes, and in the east of France, to sally out, unite, and move together upon the Marne; for he believed the corps left by the Allies to invest these places were too much weakened by the necessity of recruiting the main armies to be able to oppose the movement. The moment now seemed to have arrived for the execution

of this design. He marched on the 21st and 22nd March from Arcis to Vitry, turned that place, which was held by a Prussian garrison, by a ford above it, and assembling his army there in expectation that Schwartzenberg would hastily retreat as before, he called Mortier and Marmont towards him. But those Marshals were no longer in a condition to join him.

Marmont had held the Aisne against Blucher till the 18th March; when turned on both flanks he retreated to Fismes, and called Mortier to him from Rheims, thinking thus still to fulfil the double object of keeping up relations with Napoleon and covering Paris. Blucher then moved on Rheims and Epernay to regain his communications with the Grand Army. The Marshals then moved to the Marne at Chateau-Thierry.

Blucher
moves on
the Marne.

Arcis to Eper-
nay, 40.

Schwartzenberg crossed the Aube at Arcis after Napoleon; but he did not continue to retreat. Many circumstances proved that the political effect of occupying Paris would counterbalance any disasters that might happen to their line of communication. The Army of Bohemia, throwing forward its right from Arcis, met the left of Blucher extended from the Marne; and the combined armies, leaving a corps under Wittgenstein to cover their rear from Napoleon, spread across the space between the rivers and moved onward, crowding the two Marshals on the capital. A last fight ensued on the slopes around the city; and the capitulation of Paris was signed on the 29th March.

The Allies
unite between
the Aube and
Marne,

and move on
Paris.

Napoleon on the Marne, looking on this as a purely military event, was still resolute to disregard it and to carry out his plan; but the pressure exercised on him by his generals and by the voice of the nation was too strong to be resisted. Constrained to abandon his design, he turned towards Paris, hoping to arrive in time to prevent a catastrophe. Moving to the left bank of the Seine at Fontainebleau, he designed to fall from thence on the rear of the Allies and drive them through the capital; or, failing that, still to fall back behind the Loire and join with Soult, Suchet, and Angereau. But the exhaustion of the people, the army, and the generals, by his incessant wars, was too complete to admit of further effort. In the visions of ultimate success which still flattered his imagination, he found none to partake. Finding the impossibility of longer maintaining the struggle with officers weary of war, and a country impatient of his rule, he abdicated on the 6th April.

Result.

COMMENTS.

Points of
passage pre-
viously
known.

Since the main roads to Paris from the east crossed from bank to bank of the rivers, it was necessary for the invading armies to force the passages at the points of crossing. Thus we find the defenders disputing the bridges of Chalons and Trilport on the Marne—of Dolancourt, Dienville, and Lesmont on the Aube—of Troyes, Nogent, Bray, Montereau, on the Seine. These were certainly known beforehand as points for defence; and the fact that the advance of the assailants would be there checked for a certain time by an inferior force must be an important element in forming a plan of campaign.

Double line
compulsory
on the Allies.

If Blucher and Schwartzenberg had operated (as up to the beginning of February they seemed to intend) entirely on one of the great lines, they would not thereby have deprived Napoleon of the advantages of the converging rivers. For, had they selected the Aube and Seine for their line, he would none the less have used the upper Marne at Chalons and Vitry as a pivot from whence to fall on their communications towards Bar and Chaumont; and had they concentrated on the Marne, he would equally have threatened their rear from the Aube at Brienne or Arcis, and from the Seine at Nogent; in each case the river on which he pivoted forming a line of defence in case he should be defeated, upon which he could retreat, still threatening the enemy's flank, and from which he could manœuvre to cover Paris. Therefore the assailants decided to operate by both lines.

General plan
of the de-
fence.

This being so, the general plan of Napoleon is evident: to place a retarding wing on each river to dispute the known points of passage, and to join his main body to either, according to circumstances. It only remains to ascertain what circumstances should induce him to join either wing rather than the other, in order to have possession of the broad grounds on which to estimate the general plan of campaign.

The invading army on each line must adopt one or other of two courses,—either to march in processional order with the principal mass of the army on the main road (as the Army of Silesia was moving on the 10th Feb.), or to send columns along many roads—forming, in fact, a line of columns (as the Army of Bohemia was moving between the 14th and 17th

Feb., and again in its last advance in March). In the first case the defender might (as he did) descend from the Seine perpendicularly on the flank of the column, separate its parts, and throw them asunder across the river; in the second case, the army must be either moving astride a river, in which case the part on the inner bank might be taken in flank and overwhelmed singly,—or it might be entirely *beyond* the river. In this last case its flank would be defended by the river, the bridges on which it would, of course, hold or destroy. Thus, Blucher having pushed the Marshals on to the Ourcq, had assembled his army on the right bank of the Marne, guarding the bridge of Trilport, and having broken that of La Ferté; the river consequently protected his flank from Napoleon advancing from Sezanne. And again in March, when Napoleon was at Rheims, Schwartzberg, while attempting to pass at Nogent and Bray, held the bridges of the Aube up to Arcis, thereby protecting his flank.

Difference of
advancing
between, or
beyond, the
rivers.

Of all the various ways of operating for the defence, that of attacking the flank of the enemy's column is most effective, because, by separating and ruining his army, it reduces the odds in material force against the defender, besides recovering ground for him in the theatre; whereas, in the most successful move against the communications, though the assailants may be recalled from their forward positions, yet they may combine in superior numbers for battle, or, if the defender evades them, may renew their advance with undiminished forces. The defensive army being, then, divided into two wings, whose business it will be to retard the enemy on either line, and a main body, this central force will co-operate with one or the other wing generally, according to the following rules:—

1st, Whenever possible, the main body should attack the *flank* of an enemy moving *between* the rivers, for which purpose it will pivot on a portion of one river held by one wing. In this case the main body cannot combine directly with the other defensive wing, which will be occupied in stemming the enemy's advance—like Mortier at Troyes, when Napoleon aimed at Blucher's flank at Brienne, and like Macdonald at Meaux, when Napoleon made his attack on Blucher's flank at Champaubert.

General prin-
ciples for the
defence.

2nd, To join the main body to a containing wing in order to oppose *in front* an enemy advancing to force a river, who does not, in doing so, expose a flank. Should the enemy seek to turn the defender by advancing

on both banks, the latter will have the opportunity of falling on a separate wing—always preferring to attack that which most directly covers the enemy's communications. Therefore,

Necessity of
transverse
communica-
tions.

To operate thus from side to side at need, the main body must have free and direct communications between the rivers; and in this campaign the transverse roads Joinville-Brienne, St Dizier-Brienne, Vitry-Brienne, Chalons-Arcis, Epernay-Nogent, Meaux-Melun, become of the highest importance—indeed, nothing can be effected without them.

In order to render the defence complete there should be direct communication with the point to be covered along the *outer* bank of each river. In this the Marne was defective. For instance, had Napoleon been defeated in his first attack on Blucher at Brienne he must have retreated behind the Marne at Vitry and Chalons. But the only direct road from Chalons to Paris is on the left bank. Thus, to recover communications with Paris he must make the circuit by Rheims and Fismes, and the victorious enemy guarding the successive bridges of Chateau-Thierry, La Ferté, and Meaux, might reach the capital; whereas Arcis, Brienne, or Troyes formed better pivots, since, forced to retire over the river at either, he would still have direct communications with Paris.

From the previous deductions it follows that—

Courses im-
proper for the
defensive
army.

1st, To make a circuit in order to join a wing and confront an enemy who, moving between the rivers, exposes a flank; or,

2nd, To move against the flank of an enemy operating beyond the river, and covered by it; or,

3rd, To stand to receive battle beyond a river, unless in an exceptionally favourable position; or,

4th, To cross a river to attack in front a superior enemy,—

Are all violations of the principles on which the defence should be conducted, sacrificing the advantages of the situation.

Napoleon's
campaign
estimated by
these rules.

Judged by these rules, the campaign of Napoleon, while it shows how thoroughly he appreciated the situation, nevertheless displays many errors, the results either of over-confidence or of political exigencies.

His march from St Dizier on Brienne, his defence of Troyes against Schwartzemberg, his march to Champaubert, his descent on the rear of the Army of Bohemia from Chalons, and finally from Vitry, are all illustrations of the way in which rivers like these may be turned to account.

But the battles of La Rothière and Arcis, where he stood with inferior forces to fight on the wrong side of the river, were terrible errors. leading to heavy disasters, which a more vigorous foe might have rendered fatal. So were those of Craonne and Laon. All he gained to compensate the losses at Craonne was the abandonment of Soissons by the enemy, which would have been effected with equal certainty by an advance on the Laon road from Berry-au-Bac, threatening the enemy's communications. Soissons occupied by a French garrison, and that road to Paris from the Aisne secured, the former system of defence should have been reverted to. The Marshals should have been left to oppose Blucher on the Aisne and afterwards on the Marne, while Napoleon, with his main force undiminished by the losses of those severe battles, descended on Schwartzenberg. Blucher beyond the Aisne; the Marshals on its left bank communicating with the Emperor by Rheims; Napoleon with the main body at Chalons and Epervay; Schwartzenberg between Provins and Troyes, retarded by Macdonald and Oudinot: here would have been a situation as promising as any that could exist in the theatre; and it was one that did exist on the 17th March, and might have existed without fighting the costly battles beyond the Aisne.

Nor did he turn the situation to full account. It was pointed out in a former page that, in aiming at an enemy's communications, the stroke should be dealt so far to the rear that the enemy will not be able to evade it. Moving on Plancy, he found the army of Bohemia beyond his reach. The battle of Arcis was completely injudicious and useless.

When at Montmirail, after the several defeats of Blucher, he had the option of falling on the flank of Schwartzenberg on the inner bank of the Seine, at Mormant and Nangis, by Sezanne. He sacrificed the advantage of the situation in making the circuit by Meaux to Guignes, which brought him on the enemy's front. No doubt the alarm of the people of Paris, and his precarious hold on the nation through the capital, furnished good political reason for interposing between it and the enemy; but, judged on military grounds, it was a mistake.

The peril incurred by an assailant in attempting a turning movement on one bank of a river while operating with the rest of the army on the other, is illustrated by the position of Colloredo's corps at Fontainebleau, which would have been irremediably separated from the others had the bridge

of Montereau not been defended by the Allies against more than one attack.

It appears to have been a mistake to send a force in pursuit of Sacken and York beyond the Marne at Chateau-Thierry. For not only did the pursuing troops not intercept the retreat, or prevent the reunion of Blucher's corps, but they were unable to perform their proper function of assisting to contain the Army of Silesia on the Marne; and it marched unopposed from Chalons to menace Napoleon's flank at Mery. That offensive movement of Blucher, so soon after his heavy defeats, was the most vigorous act performed by the Allies throughout the campaign.

Manœuvring
powers of the
defensive
army.

Turned to full account, the defender in a campaign like this has not only the usual advantage of a combined against a double line of operation, but also the power of dealing his blows in the most decisive direction. In attacking Blucher from Nogent through Sezanne and Champaubert, Napoleon combined the advantages of causing him to form front to a flank, and of breaking his front, thereby gaining every point that was possible in favour of the inferior army. And the diversity of fronts he could operate on is exemplified in the different engagements. At Brienne he fought with his right flank towards Paris, his back to Vitry and St Dizier. At La Rothière and Troyes he covered the direct road to the capital. At Champaubert he had his left flank to Paris, his back to Sezanne and Nogent. At Montmirail he had turned half round towards Paris, still pivoted on Sezanne and Nogent. At Vauchamps his front was exactly reversed. And all the time the Allies were bound immovably, each to the line by which he had advanced.

Advantages
for the de-
fence con-
ferred by the
rivers.

Manifestly, then, the situation gives the defender greater advantages than any other that has yet been discussed. If the ordinary case of the single against the double line renders 80,000 a match for 100,000 (see page 177), this present case renders a superiority of more than five to four necessary in order to enable the assailant to prevail. In fact, remembering that whether he forces a passage or exposes a flank to attack he suffers in proportion, while the containing wing of the defender, strong in position and difficult to turn, suffers less than usual loss in retiring before superior forces, it is evident that, even with such odds at starting, he may, on advancing half-way to his object, find his numbers reduced to an equality with those of his adversary, when success should be impossible.

And it is easy to conceive that two allied armies might each be nearly equal to the whole force of the defenders, and yet, operating by independent lines, be defeated and foiled.

Still there must be a mode of operating by which, a certain superiority being granted, the assailant may prevail. But the reader will best appreciate the difficulties of the assailants by trying to devise for them a plan of campaign, by which, without exposing a flank, or laying bare their communications, or either attacking a defended passage, or dividing to turn it, except with sufficiently superior forces, they shall continue to advance upon the capital.

Case of the
assailant con-
sidered.

Considering how this might be accomplished, let us still call the antagonists, Napoleon, Blucher, and Schwartzenberg, only supposing them equal in skill; and let us assume that the French army has its left wing in Chalons, closing Blucher's line, its right in Dolancourt, closing Schwartzenberg's line, and its main body at St Dizier.

As to cross the space between the rivers while the defender holds a point on the other river, from whence to strike the flank, is the peril chiefly to be dreaded; the first step, before the Army of Bohemia can cross from Chaumont to the Aube, is to dispossess the enemy of the points on the Marne, Chalons, Vitry, St Dizier, from which he may direct his blow. Now, were Blucher to advance directly on Chalons, he would expose his communications to a blow from St Dizier. The first point to be aimed at, then, is St Dizier. And in order to direct both armies upon it without exposing them to be separately attacked, the preliminary to all offensive operations should be the establishment of a line of defence between Langres and Verdun, behind the obstacles that traverse that space, where the two Allied armies might form a common base of manœuvres. Guarding the flanks of this line with detached bodies, the central mass, composed of the main force of both armies, might be directed on the Marne, from Vitry to Joinville.

The French army might draw in both its wings upon the centre to defend the Marne, without thereby enabling the assailants to call up their detachments, for these must still continue to guard the flanks of the communications, which are not directly covered by the main armies. Therefore, at the outset the assailants, after making such detachments, should still be considerably superior to the total force of the enemy.

Assailants
secure the
Marne to
Chalons,

This superiority they should turn to account by mastering the course of the Marne down to Chalons. The end of these operations would probably find the French right wing on the Aube at Brienne and Dolancourt, the left wing retreating down the Marne; the main body would join the right wing for the defence of the Aube.

and throw
forward their
left to the
Seine.

Holding Chalons and Vitry with the right, the centre and left of the Allies would now cross from the upper Marne to the Aube, force that river, and push the defenders over the Seine at Troyes.

Now it is evident that, if the Allies continue to advance on this line, directly they cross the Seine, the Yonne comes into the system of defence. They must guard Sens and Pont-sur-Yonne on their left, while in front they approach Nogent, Bray, and Montereau, and must still hold passages on the Aube to cover their rear. If they force the bridges of the Seine down to Montereau and advance towards the Yères, they offer the flank of their widely-extended line to an attack based on the Marne, and their rear to an attack based on the Yonne. And, at the same time, they cannot advance along the Marne while Napoleon has the Seine for a pivot from which, by Sezanne, to descend on their flank.

Therefore, it will be better to halt between the Seine and Aube: occupying the passages of Troyes and Mery on the one side—of Anglure, Plancy, Arcis, on the other; the main body in the triangle, Mery-Arcis-Troyes, with detachments at Lesmont and Brienne.

Napoleon may either remain with his centre and right wing on the Seine: or, seeing in the position of the Allies a menace to his transverse line by Sezanne, may move thither his centre, calling up his left wing, for the moment useless on the Marne, and leaving his right on the Seine.

Assailants
hold the
Seine, and
throw their
right forward.

In the first case, the Allies, issuing from the passages of the Aube, will form front from Sezanne to Anglure, still guarding Mery and Troyes with their left; and will advance towards Villenoxe and Pont-sur-Seine. Either Napoleon will form front on the line Provins-Nogent to meet the attack, or will retreat to the Yères. If he stands to fight, the corps from Mery and Troyes must join in the attack on the bridges of Pont-sur-Seine and Nogent on the left bank.

In case he takes post at Sezanne, the Allies from Anglure, Plancy, and Arcis will direct their columns thither—calling up the corps from Vitry, and directing that at Chalons to move to Bergères, and thence, if

necessary, to join in the battle. Either Napoleon stands to fight with inferior forces, or retreats upon the Marne. In either case the Allies follow to the Marne, force him back on the Ourcq, and occupy Trilport and La Ferté-sous-Jouarre.

Either the French centre remains to hold, in conjunction with the left wing, the line of the Ourcq—in which case the decisive action is fought there while the Allied left and French right watch each other on the Seine—or the French centre joins the right by Guignes to deal a blow against Blucher's communications with Chalons. In that case the Allies, leaving their right on the Ourcq and Marne, march through Sezanne, to fight the battle on the right bank of the Seine. Pushing the French right and centre to the Yères with their own centre and left, they fight then the decisive battle. It should be decisive, for the Allies on the two rivers, approaching each other in the narrowing angle, are now united, and can combine in a movement on Paris, holding the passages at Melun and Montereau on one side, at Meaux on the other.

In executing such a plan the weapons of the defender would in some measure be turned against himself; for each wing alternately of the assailants would stand on the defensive behind a river, while the centre, crossing between the rivers, would join the other wing, in order to make a step forward and deprive the defender of his most effective means of action. But being, as assailants, under the necessity of taking these forward steps, they do so at the disadvantage of always attacking a strongly-posted enemy under penalty of exposing a flank to him, and this course demands a superiority in numbers of certainly not less than 4 to 3, and probably greater than that.

It is of course difficult to draw a satisfactory programme of an imaginary campaign, but the main points of what has been just sketched form an intelligible plan. In the actual operations of the Allies there is no indication of any design other than that of advancing whenever they could, on either line, and retreating whenever their rear was threatened; and but for the peculiar tenure of Napoleon's power in France, and the losses and discouragement of his army in battles that should not have been fought, there seems no reason why on their plan of action they should ever have entered Paris. But by following the systematic method described, of throwing their weight judiciously from side to side of the

theatre, they might, without retrogression or defeat, have succeeded, with their superiority of numbers, in forcing their way to the capital.

Effect of a
third conver-
gent stream.

The effects of a third convergent stream, like the Aube, tributary to either of the others, and between them, and which is traversed by the line of operation, are—to multiply the known points of attack—to cause the assailant to disperse still more—and to oblige him (on whichever side of this intermediate stream he may operate) to expose a flank to the enemy on one of the other rivers. Thus, when the assailant's columns crossing the central river are divided by it, they are exposed to be attacked piecemeal and in flank. "The intermediate line of the Aube," said Napoleon, discussing the campaign, "materially increases the difficulties of the invaders, while it strengthens the defenders' means of resistance; for the enemy's forces divided between those rivers, sometimes from necessity and sometimes from choice, would present many opportunities of being attacked with advantage."

When, as in this theatre, a number of rivers converge like radii towards the objective, the assailant's policy evidently is to include as few of them as possible in his front of operations. Directly Schwartzenberg passes the Seine at Troyes, the Yonne, hitherto useless, is brought into the system of defence: and he is forced, as we have seen, for the guarding of his flanks, to disperse his forces so widely as to render them ineffective either for attack or defence against a concentrated enemy.

So various are the lessons conveyed by this campaign, that the reader who has mastered it must be competent to investigate almost any problem which strategy can offer. And he will doubtless be somewhat surprised to find how great is the importance of obstacles of the kind discussed in this chapter, for their influence is by no means obvious at first view.

This is a case where to assume the initiative, often so necessary and successful, is not an advantage—since it is the army which advances that offers opportunities to its adversary.

Effect of
railways and

Railways, which the retreating army would destroy, while it covered its own lines to the capital and the transverse lines connecting them,

would, in conjunction with telegraphs, greatly increase the advantages of telegraphs in the defence by augmenting the power of rapidly throwing the main body ^{this case.} towards either wing. On the other hand, telegraphic communication between the invading armies would enable them to act in concert (*vide* Part IV. Chap. VII.). In fact, the increased opportunities offered to both sides by railways and telegraphs will probably benefit whichever commander uses them with most skill and resolution.

CHAPTER VI.

OF FORTRESSES.

Fortresses
formerly gave
great security
to frontiers,

AT the period when the system of making war was so far organised as to render armies extremely dependent on their bases, but while they were still unwieldy machines, not easily divided, and slow of movement, the establishment of great fortresses on frontiers liable to invasion, and on main roads leading from those frontiers to the capital, was an obvious expedient; for these slow-moving bodies could not venture to penetrate within a line of strong places, exposing to the sallies of powerful garrisons the long communications and cumbrous convoys which they did not possess sufficient mobility to defend by detached corps. Therefore that frontier was considered (justly, perhaps, according to the circumstances of the time) the strongest, on which strong places were most thickly set; and to besiege or to relieve a fortress was the business of a whole campaign.

but were costly
defences.

But fortified places are great drains on the resources of a country. They are expensive to construct and expensive to maintain. A few of them will swallow up, for their necessary garrisons, armies that might turn the scale of a great war in the open field. Hence it was only necessary to show that invading armies could pass them, and, after victories in the field, could make of them an easy and certain prey, to render it apparent that a continuance of such a system of defence must be a costly blunder.

Perhaps the rudeness of vehicles and the badness of all but great roads may have combined with the cumbrous organisation of the armies of the last century to render them little capable of passing such fortresses

as lay in or near their path. But when roads and transport improved, and armies underwent the change already described, resulting from the condition of France after the Revolution, these mobilised machines, Modern armies have often disregarded them. avoiding by a slight detour the fortified places in their way, leaving corps complete in their separate organisation to observe or blockade them, and rendering themselves to some extent independent of convoys by contributions raised within the enemy's frontier, marched upon those points of the theatre that were of greatest strategical importance, seized them, defeated and ruined the hostile armies, and then, at their leisure, reduced or demanded from the prostrate power the cession of the strongholds in which it had so vainly confided.

In June 1800 the Austrians held in Italy the fortified places of Genoa, Coni, Alessandria, Tortona, Arona, Piacenza, Ceva, Savona, besides the citadel of Milan, blockaded by the French: but the victory of Marengo gave all these to the conqueror. In 1806 the fortresses of the Elbe did not prevent Napoleon from penetrating to the Oder; and the capitulation of Magdeburg, Spandau, Stettin, Custrin, was almost simultaneous with the destruction of the Prussian armies. Again, Napoleon, driven out of Germany in 1813, left strong garrisons in fortresses on the Elbe and Oder. As the Allies advanced towards the Rhine, detached corps were left to invest these places; but, on their surrender, the garrisons were lost to Napoleon, while the investing corps marched to swell the Allied armies invading France. Nor did the triple line of fortresses that guarded the French frontiers of Belgium and the Rhine prevent Blücher and Schwartzemberg from marching upon Paris.

It was plain, then, that numerous bodies of 6000 to 12,000 each, or even stronger (25,000 French were left in Dresden), shut up in a line of fortresses, might be as utterly lost as if they were buried there, and quite ineffectual in a campaign which might have been decided by their presence in the field.

But, on the other hand, it was equally plain that fortresses, properly distributed, might exercise a most potent influence. If France had too many, Germany had too few. Had strong places existed in 1809 on the Inn and the Traun, the defeat of Eckmühl need not have been so rapidly followed by the capture of Vienna. "All that a great monarchy wants," says the Archduke Charles, "is time to develop its resources." And time Yet the want of fortresses has often been severely felt.

Austria would have gained had she possessed at Linz a fortress or intrenched camp commanding the passage of the Danube and the road to Vienna on both banks, difficult to invest, impossible to leave in the rear. And, in 1814, had Chalons, Troyes, Nogent, been fortresses capable of sustaining a siege, it is easy to imagine what difficulties they would have interposed in the way of the Allies, and what support they would have afforded to Napoleon. In our own day we have seen a small fortress change the aspect of a great war; for had Silistria failed to repel the Russian army, Turkey, not the Crimea, would have been the scene of the campaign.

Their uses.

Fortresses, then, though without armies they are unavailing, may give to a country defensive power that counterbalances the cost of their construction, armament, and equipment, and the deduction of their garrisons from the active force. And if, besides being impregnable to open assault, they contain within their defences everything necessary for the supply of armies, they may be used as temporary bases, or pivots, round which an army can operate with vastly increased power and latitude of manœuvring. Their value for this purpose will be immensely increased by forming round them an intrenched camp—that is, a line of continuous or detached works, inclosing space sufficient for the assembling and manœuvring of an army. Assuming, then, that fortresses properly placed will confer advantages that vastly more than compensate for the extent to which they tax the resources of a state, it remains to determine the points on which they will be most fitly situated.

Selection of positions for fortresses.

Mountains unsuitable.

The double object of giving security to fortresses, and of commanding through them points of strategical importance, will be best secured by placing them on natural obstacles, and at the junction of many great roads. If a mountain-pass were guarded by an important place, it would be difficult to provision and supply the garrison; the issues would be easily blocked by a few troops; and an invading army might turn the place, masking the defiles with numbers less than the garrison, and its capitulation under the stress of the blockade would be a question of time only. Mountain summits, then, are unfit positions for fortresses, though small forts may be judiciously placed where they close a main pass, as at Bard; even so their influence may no longer remain undiminished, for

when a mountain barrier is penetrated by a railway, forts closing passes at other points lose much of their importance. The Germans, in 1870, having possessed themselves of Saverne, were comparatively independent of the roads closed by Bitsch, and contented themselves with observing that hill-fort throughout the campaign. But situated on rivers, at points where the main communications cross, fortresses not only command both banks and open numerous opportunities for attacking the enemy that attempts to pass the obstacle, but are also difficult to invest, since the besieging army, in order to surround the place, must have bridges both above and below it, and will thus be doubly dependent on a kind of communication which floods and other casualties render especially precarious. Best placed
on rivers.

Fortresses on either bank of a river will sometimes command the passage, from the superior power of their heavy artillery; but great additional security may be given to the army issuing from them by placing them astride the stream, thus protecting the bridge from all risk of assault or cannonade; always provided that no ground commands the works within cannon-range. The same important end may be attained, where fortresses do not exist, by bridge-heads—that is, works demanding only very small garrisons, and armed with guns of such calibre as to keep field-artillery at a distance, while at the same time they afford all facility for the issuing, and formation on a large front, of troops that have passed the bridge. The fortifications should therefore be placed at some distance from the head of the bridge, and may consist either of a single enclosed work, if an isolated hill affords a site from whence it will command a sufficient space, as Mount Valerien commands the passages of the Seine; or (which will give far greater security to the passage) of several small detached works placed on an arc, heavily armed with artillery to keep the enemy's field-guns at a distance, each occupied by two or three companies, and flanked by the fire of a central work placed near the bridge, and completely protecting it from a night-attack. Thus, at the expense of a few battalions and some heavy guns in the works, a passage may be secured against any partial attack. But in all cases it is essential that the utmost facility should be given for the issue of troops. This was amply proved at Marengo; for the Austrians had protected the passage of the Bormida by a bridge-head having only one issue: thus the whole Austrian army was forced to defile by it, and their left column,

the action of which, to be effective, should have been simultaneous, was long delayed from taking part in the action, while the troops that passed first suffered enormously in making a front attack on the French.

It will sometimes happen that the banks of rivers are unfavourable to defences of this kind. At Donauwerth, for instance, a high hill, the extremity of a spur of the Alps, rises from the river on the left bank, close to the town. To cover the passage from an enemy approaching from the Maine, the work constructed to protect the bridge must be itself protected from an enemy who might gain the hill. Therefore the hill must be fortified; and as the works there could not be protected by fire from the right bank, which is flat, they must be strong enough to maintain themselves: hence a fortress on the hill is necessary to secure the passage at Donauwerth. But a great part of the course of large rivers, such as the Po, the Danube, and the Rhine, lies through wide flat valleys, where works protecting bridges, not being commanded, have full effect, and where they confer immense advantages on their possessors. At Dusseldorf, Cassel (opposite Mayence), Kehl, Brisach, and Huningen, they gave a continual superiority to the French in the wars of the Revolution, giving them free issue to the German bank of the Rhine for the offensive, and affording certain refuge in defeat.

Especially
important in
flat valleys.

Their effect
when situated
on direct
obstacles.

Placed thus astride of rivers which directly traverse the probable lines of operations of an enemy, fortresses, as the strongest kind of bridge-heads, may, according to their position, whether on the centre or extremity of the defensive line, give security to the front or the flank of the army that holds the obstacle. They force an enemy to be more cautious in his approach, and, by rendering him more solicitous to defend himself on his own bank while attempting to cross to the other, they deprive his operations of the vigour and decision in which lie his best hopes of success. Nevertheless, if a river be held strictly on the defensive, they do not, as has been repeatedly proved (thrice on the Mincio, and often on the Rhine), prevent an assailant from crossing. It may be questioned whether a short definite line like the Mincio would not be better defended by a single fortress astride of it at a central point, such as Ferri or Goito, rather than by one at each extremity; for a French army could not cross on both sides of such a fortress, since it would be voluntarily separating its front in the most unfavourable manner. It would

therefore be limited to one or the other half of the river—that is to say, to a space of 12 or 13 miles. Should it cross the lower portion, the Austrians issuing from the fortress would force it to fight with its back to the Po; should it cross the upper part of the stream, it must fight with its back to the lake; and in both cases on a front parallel to its last line of communication with the base.

To the reader of preceding chapters it will be quite unnecessary to expatiate on the advantages of placing fortresses astride of rivers which are parallel to the line of operation of an expected invader. Placed on such a river, at the confluence of another stream of which they also command the passage, they confer additional advantages on the army resting on them, besides being especially secure from attack, since a besieging army must be dependent on three sets of bridges during the investment, and if any of these were damaged by a flood or other accident, the whole force would be in jeopardy. And if, moreover, they are situated in parts of the theatre where the possible front of operations is greatly narrowed, they combine all the conditions of efficiency. Linz is an example, where the Austrians constructed, after the lessons of Napoleon's wars, an intrenched camp¹ commanding both banks of the Danube, with the roads to Vienna and Bohemia, and the passage of the Traun, and where the mountains of Salzburg on the one side, and the Danube on the other, narrow the practicable front of operations to the space from Linz to Lambach—about 25 miles.

Discussing the features of South-Western Germany as a theatre of war, the Archduke selects the following points as most advantageous for fortresses, placing in the first rank those which require garrisons of 12,000 men and upwards; in the second, those whose garrisons are from 6000 to 12,000; in the third, those between 3000 and 6000.

Taking the Enns and the Moldau as the base, he proposes to fortify

Enns (1st class).

Prague (1st class).

Budweis (2nd class), as an intermediate point of inferior importance.

Their effect when on rivers parallel to the line of an enemy's operations.

Archduke's proposed system of fortresses for S.W. Germany.

See Map No. 7.

¹ The works (32 towers) were considered to afford no protection against modern artillery, and have been suffered to fall to decay. The importance of the site renders it probable that new works will be constructed.

Ratisbon (1st class).

Ulm (2nd class).

Ingolstadt (3rd class), to connect Ulm and Ratisbon, at the junction of many important roads.

Heilbronn (1st class).

Passage of the Neckar near Canstadt (3rd class), to command the roads from the Rhine and Maine towards the Danube.

These he regards as the most important points; but for increased power of defence he would support these by other fortresses at

Klattau (3rd class), as the most important point between Budweis and Ratisbon.

Passau (2nd class), to connect the two banks of the Danube and cover the bridge of the Inn.

Ebersberg (a small fort), at the passage of the Traun.

Yet he says an enemy might leave on one side the fortresses of the Neckar and the Upper Danube, and descend in force straight on Ratisbon, separating Ulm, &c., from their base. In fact, the lesson of 1805 had taught the Archduke this possibility; therefore he would add to the system.

Wurzburg (2nd class), closing the best roads from the Maine to the Danube. And, to complete the system,

Moldau-teyn (a bridge-head), being the only good passage between Prague and Budweis.

Steyer (a fort).

Amberg (2nd class).

Landshut (3rd class), securing the flanks of an army manœuvring round Ratisbon.

Moskirch (2nd class), and

Miltenberg (3rd class), as outworks of Ulm.

Jomini on the
defence of
France by
fortresses.

Jomini, while pointing out the errors of the system on which France had been fortified in Louis XIV.'s time, when, on a third only of her total extent of frontier, forty fortresses had been constructed, yet considered that each face of her frontier as it existed before the war of 1870 (that of Belgium, or of the Rhine, for example) should have three fortresses in first line, three in second line, and a great place of arms between the second line and the capital.

But Marshal Marmont, discussing the same question, considers that one great place on each frontier would suffice—for example, Lille for the Belgian frontier, Metz for that of the Ardennes, Strasbourg for that of the Rhine. But these should be something more than fortresses—they should contain sufficient material for a great army in artillery, firearms, provisions of all kinds, workshops, arsenals, hospitals; in fact, collecting all the raw material which naturally flows from the surrounding district into a great city, they should be capable of converting it, by means of a large population of artisans, and of extensive manufactories, into the material of war—of turning brass into cannon, iron into projectiles and rifles, wood into trains of waggons, wheat into biscuit, canvas into tents, &c.—so that an army might manœuvre round such a place either in its own or the enemy's country, secure of all the support which a near base can afford.

When a frontier is unmarked by any natural obstacles, and has numerous issues, it is in vain to attempt to close it entirely with fortifications; for an enemy, masking one or two of the strong places, would penetrate the line, and still be superior to the defensive army in the field, deprived as it would be of many troops for the ineffective garrisons of the frontier. That the influence of fortresses extends only to a limited radius is seen from the fact that in 1815 Tournay and Mons had not the slightest effect on Napoleon when he was advancing by the line of Charleroi. But, on the other hand, Napoleon may have been mainly induced to select that line by the fact that Mons and Tournay were fortified, and that his fighting force would be diminished by the necessity of masking them, should he advance by the roads on which they stood. On the whole, it would seem that an open frontier will be best protected by a very few strong places, situated on the most direct lines to the capital, whereby an invader will be driven to make a great circuit, or to diminish his fighting force considerably, in order to pass them, while the garrisons drawn from the defensive army will thus be reduced to a minimum.

If a frontier, naturally strong, have few issues, the strong places that guard them become of immense importance. In 1812 the French held Ciudad Rodrigo and Badajos; they thus closed the doors between Spain and Portugal, and the one fortress would afford a base to Marmont, the other to Soult, in offensive operations against Lisbon.

Marmont on the same.

An open frontier best guarded by a few great fortresses.

Importance of fortresses when the issues of a frontier are few.

If, on the other hand, Wellington, masking Badajos, were to take the offensive against Soult in Andalusia, Marmont from Ciudad Rodrigo would in a moment recall him by threatening Lisbon; and Soult would in the same way, from Badajos, prevent an attack on Marmont.

The peculiar circumstances under which the French occupied Spain rendered it necessary that they should spread widely, in order at once to obtain subsistence and to keep down the hostile population. The scantiness of provisions generally reduced them to the defensive during the winter and early part of the year, till the harvest filled with grain their central depots of supply. At these seasons they could safely disperse their troops to seek subsistence, so long as the two fortresses kept the English at bay. But Wellington, supplied from the sea, was more independent of the country; and, if he could capture the fortresses, he might take the offensive at a season when it was most inconvenient for the French to assemble in masses. Hence it was that the possession of these places was so important to either side, and that Wellington rightly considered it worth the risks and certain heavy losses of the famous attacks by storm.

Importance
of fortifying
a capital.

On a frontier, then, with few issues, especially if these be distant from each other, fortresses will be especially valuable, by obstructing an invader till the defensive army can place itself on the line of intended invasion; and the best situations for them will be easily recognised. The interior range of strong places must be situated on points advantageous for defence, and strategically important. Lastly, the defence of the capital by fortifications is a measure of incalculable advantage. "The fortifications of Paris," says Marmont, "assure more powerfully the independence of France against the attacks of all Europe than the acquisition of many provinces, which would only so much the more extend the frontier." The student of the campaign of 1814 will perceive what vast additional power of manœuvring Napoleon would have gained had Paris been secure from assault. No longer recalled by the fears of the people, or by political exigencies, to interpose directly for its defence, all his strokes would have been delivered in the most decisive way; and the nearer the Allied armies approached the capital, the more imminent would be the risk they ran of a fatal disaster.

Though instances have occurred where, as at Silistria, frontier fortresses

have, by resisting the besieger, baffled an invasion, yet the strictly defensive effect to be expected from these, as from natural obstacles, is only that of delaying the assailant, and thereby giving the generals in the field the opportunity of opposing combinations and enterprises which depend for success on swiftness of execution. But, as with rivers and mountain-ranges, the obstructing of the enemy is only a part, and not the most decisive part, of the influence which fortresses may be made to exercise on a campaign; and to turn them to full account a general must employ them as powerful aids for attacking the adversary at a disadvantage.

Fortresses chiefly useful to aid offensive operations.

Sites formerly eligible for fortresses are so, in many cases, no longer. The war of 1870 conclusively proved that, owing to the increased ranges of guns, places formerly deemed strong, such as Toul and Montmedy, are now easily commanded, and consequently untenable. For the same reason fortified towns, which were formerly safe from bombardment while their outworks were held, are now liable to destruction while the defences are still unbreached; of which Peronne, Thionville, and Mézières are examples. In these cases the surrender has always been compelled, in a very few days, by bombardment, after great destruction of property. It follows that, unless fortified towns are surrounded, at a considerable distance, by a girdle of forts on commanding ground, they are worse than useless; and that the only kinds of permanent fortresses which are admissible are intrenched camps, such as Metz should have been, and hill-forts closing important passes.

Many fortresses rendered untenable by modern artillery. Fortified towns now liable to be reduced by bombardment.

A fortress astride of a river will very imperfectly fulfil its functions unless the stream is so thoroughly bridged within the works as to cease to exist there as an obstacle. There were two permanent bridges over the Moselle in the city of Metz, which, besides the railway bridge outside the walls, were at Bazaine's disposal. Yet he attributes his inability to transfer his army to the west bank on the 13th August 1870 to the destruction by floods of other trestle-bridges thrown for the occasion.

Fortresses over streams should include many bridges.

If these views be accepted, the principles on which a system of fortresses should be constructed are these:—

Principles on which a system of

1. The nature of the frontier must be considered—whether difficult of access and easily closed by small works, or open. If open, a large fortress and intrenched camp, at such a distance from the frontier as

fortresses or intrenched camps should be based.

will admit of an army manœuvring in front of it, yet close enough to form a base for operations in the enemy's country, will be of great value. If, however, the frontier be a great river, the fortress may appropriately be situated *on* it.

2. When the distance between the frontier line and the capital is great, a second defensive line should be formed. It should consist of intrenched camps situated on possible great lines of operation, at such points as will combine the advantages of easy communication (by railway if possible) with each other and with the capital, of being at suitable intermediate distance between the capital and the frontier, and of offering facilities for defence.

3. The capital (or, if it be too near the frontier, some central place of importance) should be fortified.

In this way the most considerable frontier and line of invasion might be secured by two or three fortresses and intrenched camps, with a few inferior works to obstruct particular defiles or to secure passages of intercommunication; and the student will appreciate the value of these to the commander of the defensive army, in giving him the option of indirectly defending the capital by operating on the invader's flank, and forcing him either to diverge from his line or to divide his forces.

The student will find it an excellent exercise in strategy, and one taxing his acquirements, to take a map of any country—France, Spain, Turkey—and advise for it an efficient and economical system of fortresses, always remembering that these must be placed where they combine the conditions of security from attack with the command of those points in the theatre which are of chief strategical importance. For to place the fortresses in the most effective situations, he must know well the features of the country, and be able to recognise and deal with the many problems it may suggest, under various circumstances, as a possible theatre of war—problems such as it has been the object of this work to state and discuss.

NOTE TO SIXTH EDITION.

The question of fortresses is one on which there is considerable diversity of opinion. There are some who look on them as altogether objectionable. These argue that fortresses merely absorb troops who might be more profitably employed with the mobile armies in the field, while anxiety to relieve an

invested fortress often leads field armies to destruction. Thus in 1870 the attraction of Metz first proved fatal to Bazaine and then lured M'Mahon to ruin. See Chapter VII.

During the recent war in South Africa the intensity of the desire to relieve Ladysmith, Kimberley, and Mafeking should serve to remind us how great may be the force of public opinion on such a question. Still more recently, in Manchuria, the premature movement of Stackelberg, resulting in his defeat at Telissu, was brought about by the Russian anxiety to relieve Port Arthur. See Chapter VIII. It is further argued that fortresses having, of themselves, no striking power, they must fail to check an invader; as, if they are at a distance from his line of advance, he may ignore them,—while, if that cannot be ventured, he will merely mask them and pass on to defeat the hostile field armies. The great strength of the defensive under modern conditions makes it possible to mask a fortress with a force, about equal to the garrison, strongly intrenched round it; and after the field armies have been defeated fortresses can do nothing to save the situation.

On the other hand, it is maintained that second-line troops, of little value in the field, can be usefully employed in garrisoning fortresses, which form valuable pivots of manœuvre, conferring increased freedom of action on the field armies. It is urged that the need to invest, or mask, fortresses weakens an invader and so increases the chance of eventually defeating him in the field; and that, suitably placed, they must delay an invader and so gain time for preparations to be made to meet him. Moreover, if fortresses have often misled field armies, the fault lies, not with the fortresses, but with the generals, or, more often, with the governments, who were ignorant of their proper uses. Public opinion is seldom guided by sound strategical considerations; and if danger to a fortress has often led public opinion astray, it has also been frequently led astray through apprehension resulting from the absence of fortification round some valued point.

At the present time France, by an elaborate system of fortresses on her frontier, shows her belief in their usefulness. Germany, on the other hand, continues to place her chief reliance on training, organisation, numbers, and readiness for war,—the attributes which gave her such complete success in 1866 and 1870.

The truth would seem to be that a nation which is always so strong and so ready as to be able to count on seizing and maintaining the offensive has little need for fortresses, and is wise to put her strength into her field armies. Whereas a country which is unready and requires time to develop its resources is forced to rely on fortresses, and, provided they are well placed and correctly used, may derive great assistance from them. It does not follow that such a country might not, in the long-run, derive greater profit from following Germany's example of strength and readiness.

CHAPTER VII.

THE CAMPAIGN OF METZ AND SEDAN CONSIDERED WITH
REFERENCE TO THE FOREGOING CHAPTERS.

(Maps Nos. 15 and 16).

THE desire of France for an extension of her frontier, which had been justly ascribed to arrogance and ambition, became, after 1866, the expression of very reasonable apprehensions. Up to that year Prussia had been separated from her Rhenish provinces by an interval occupied with independent States, and her military power was not such as to render her, under the existing circumstances, formidable to France. But the campaign against Austria had changed all this. A great military monarchy, possessing an army no less formidable for organisation and discipline than numbers, was now at the door of the Empire, and the opening of the war attested how real was the peril which the new situation contained for France.

Delusive
belief that
France would
take the ini-
tiative.

The circumstances under which war was declared seemed to indicate distinctly the course which the campaign would take at its commencement. From the demeanour of France, and her apparent determination to precipitate hostilities, it was justly and generally inferred that her plans were formed and her preparations made, and that she desired to keep the start she had gained on Prussia. Hence it was believed that she would at once enter on an offensive campaign. Within a week of the declaration of war (15th July) the world was already growing impatient to see her cross the Rhine, and was wondering at her delay; and expected

to see her armies overrun Rhenish Prussia, or interpose between South Germany and the Northern Confederation, while the assembling of the several Prussian corps was still incomplete.

As the days of July wore on without action on the part of the French, ^{French inaction.} it became apparent that the Prussian assembling (the time required for which might be calculated with approximate accuracy) would be accomplished before the French would be ready to move forward. It was soon no secret that the French preparations were incomplete in every particular. Their battalions were deficient in men, their transport and cavalry in horses, their trains in material; provisions, ammunition, and stores, if existing in sufficient quantities,¹ were not easily available, and the railways of France did not readily lend themselves to a move- ^{French railways.} ment of concentration on the frontier. There are only four which, traversing the interior of France, approach the menaced boundary: those which issue by Thionville, Saarguemines (incomplete from Verdun to ^{Map 15.} Metz), Strasbourg, and Belfort.

According to a project prepared by Moltke a year or two before, the assembly of the German armies was destined to take place in Rhenish Prussia and Rhenish Bavaria, on a front extending along the river Saar, and thence to both banks of the Rhine at Karlsruhe. For he argued that the neutrality of Belgium on the one side, Switzerland on the other, limited the theatre of action at first to the area from Luxembourg to Basle, and that (briefly) whatever course of operation France might pursue — whether to fall at first upon South Germany or to advance towards the Main, the German armies thus concentrated on the part of that area which they could most promptly reach, and on the shortest line to Paris, would also be best placed for meeting all contingencies.

Thus the great question of which side should take the initiative, the aim of both, depended on which army should first be assembled ready for action in the area designated.

¹ It is said, probably with truth, that a sufficiency of these and of troops of the reserve existed, but that want of transport, and defects of organisation and direction, rendered them unavailing.

The forces which the Germans placed in motion were these:—¹

FIRST ARMY—STEINMETZ.

					Commander.	Home Locality
VII. Corps	.	25 batt.	8 squad.	84 guns.	Zastrow.	Westphalian.
VIII. "	.	25 "	8 "	90 "	Goeben.	Rhinelanders.
3rd Cavalry Division	.		16 "	6 "	...	...

SECOND ARMY—PRINCE FREDERICK CHARLES.

Guard	.	29 batt.	32 squad.	90 guns.	Prince Augustus of Wurtemberg.	...
III. Corps	.	25 "	8 "	84 "	Alvensleben II.	Brandenburg.
IV. "	.	25 "	8 "	84 "	Alvensleben I.	Saxon.
IX. ² "	.	23 "	12 "	90 "	Manstein.	Schleswig.
X. "	.	25 "	8 "	84 "	Voigts-Rhetz.	Hanoverian.
XII. ² "	.	29 "	24 "	96 "	Crown Prince of Saxony.	Saxon.
5th Cavalry Division	.		36 "	12 "	...	...
6th "	.		20 "	6 "	...	...

THIRD ARMY—CROWN PRINCE OF PRUSSIA.

V. Corps	.	25 batt.	8 squad.	84 guns.	Kirchbach.	Posen.
XI. "	.	25 "	8 "	84 "	Bose.	Hessian.
I. Bavarian Corps	.	25 "	20 "	96 "	Vonder Tann.	} Bavarian.
II. "	.	25 "	20 "	96 "	Hartmann.	
Wurtemberg Division	.	15 "	10 "	54 "	Obernitz.	Wurtemberg.
Baden	.	13 "	12 "	54 "	Beyer.	Baden.
4th Cavalry	.		24 "	12 "	...	...

SUBSEQUENT REINFORCEMENTS (AFTER 1ST AUGUST).³

FIRST ARMY.

I. Corps	.	25 batt.	8 squad.	84 guns.	Manteutel.	E. Prussian.
1st Cavalry Division	.		24 "	6 "

SECOND ARMY.

II. Corps	.	25 batt.	8 squad.	84 guns.	Fransecky.	Pomeranian.
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THIRD ARMY.

VI. Corps	.	25 batt.	8 squad.	84 guns.	Tumpling.	Silesian.
2nd Cavalry Division	.		24 "	12 "

Grand total	First Army	75 battalions.	64 squadrons.	270 guns.
	Second "	181 "	156 "	630 "
	Third "	153 "	134 "	576 "
		<u>409</u> "	<u>354</u> "	<u>1476</u>

¹ Battalions took the field 900 strong. Squadrons 150 strong.

² Allotted to 2nd Army on 30th July, previous to which their disposal had been reserved.

³ These were sent forward, early in August, as soon as railway transport became available.

Besides the above, there were available in Germany the 17th Infantry Division and 4 Landwehr Divisions, giving a total *field* army, including staffs of 462,300 infantry, 56,800 cavalry, 1584 guns. Including non-combatants and garrison and depot troops, the total effective strength in August was 1,183,389 men and 250,373 horses. These figures serve to show the proportion between total numbers available and the strength of the army that can be maintained in the field.

Nine lines of railway were at the disposal of the North and South German troops:—

German
railways.
Map 15.

- Line 1. Berlin—Hanover—Cologne—Neukirchen.
- " 2. Berlin—Cassel—Frankfort—Mannheim—Homburg.
- " 3. Dresden or Leipsic—Bibra—Fulda—Mainz.
- " 4. Leipsic or Harburg—Kreiansen—Paderborn—Biebrich.
- " 5. Munster—Dusseldorf—Cologne—Duren—Call.
- " 6. Posen—Gorlitz—Leipsic—Wurzburg—Mainz—Landau.
- " 7. Augsburg—Ulm—Bruchsal.
- " 8. Nordlingen—Crailsheim—Meckesheim.
- " 9. Wurzburg—Mosbach—Heidelberg.

Of these, 1, 2, 3, 4 were assigned to the Second Army, 5 to the First Army (VII. and VIII. Corps), 6 to the V. and VI. Corps, and 7, 8, 9 to the South German troops.

Owing to the Prussian organisation and military system, all the corps could be assembled simultaneously, each in its own district, complete in men, material, and munitions; parts of corps followed each other in succession towards the same points, till all were assembled entire, when their supplies were directed from the same districts on the same line—for in every military district of Germany the regular troops and the reserves form one united corps, complete in the three arms, directed by their own staff, and supplied from their own magazines. But in France the regular regiments were connected neither with particular localities nor with the reserves which those localities supplied; while the stores, instead of being definitely allotted, were collected in a few great depots. Thus it happened that while the French railways were scenes of disorder, obstruction, and false or purposeless movements, those of Germany were acting with the unity and certainty of full rivers flowing onward to the sea.

The German system, by which corps locally organised and complete were connected by distinct lines of railway with their own districts, thus rendering all Germany the source of supply, came into immediate contrast with the more primitive French system, by which troops from all parts of the Empire, and without previous association, were brought together, and supplied from fortresses converted into depots for the occasion. So defective was the French system that the divisions of the army were at once separated for subsistence, and in the first marches their supplies and transport failed.

Under such different conditions, nothing but the previous concentration of troops and material on the Rhenish frontier could have sufficed to give France the advantage. And when it became apparent that the French corps were assembling slowly and with difficulty and confusion (with *what* difficulty and confusion the French official documents captured and published by the Prussians have since disclosed); that the want of transport and of provisions had begun to be felt before the organisation of corps was complete; that the railways were in all directions encumbered by trains moving in disorder or not moving at all,—it became apparent also that the advantage of the initiative would be with the Prussians.

French projects.

The French plans had originally been framed on three suppositions—viz., (1) that the South German States were by no means unanimously friendly to Prussia, and would give her, at most, a half-hearted support; (2) that Austria and Italy would join France in an alliance against Prussia; (3) that the French forces would be able to take the field more rapidly than the Prussians. Based on these hopes Napoleon's plans were to assemble his main army about Metz, a smaller army about Strasbourg, and a reserve at Chalons. He calculated on having 385,000 men in the field before the end of July, organised as follows:—

CORPS.	COMMANDER.	DIVISIONS.		STRENGTH.		
		Cavalry.	Infantry.	Battalions.	Squadrons.	Guns.
1	M'Mahon	1	4	52	28	120
2	Frossard .	1	3	39	16	90
3	Bazaine .	1	4	52	28	120
4	Ladmirault	1	3	39	16	90
5	De Faily	1	3	39	16	90
6	Canrobert	1	4	49	24	120
7	Douay .	1	3	38	20	90
Guard	Bourbaki	1	2	21	24	72
1st Reserve Cavalry Division					16	12
2nd " " "					16	12
3rd " " "					16	12
Reserve Artillery . . . .					...	96

Total . . . 329 battalions.
 220 squadrons.
 924 guns (including several "mitrailleuses").

In the preliminary distribution of the armies the general idea was to keep the Germans in doubt as to the intended line of advance. Then Napoleon intended to seize the initiative, unite the centre with the right, and cross the Rhine into South Germany, where he expected to find many adherents. Austria and Italy were to combine in a general movement on Berlin, which was to follow the expected successful invasion of South Germany. Prussia would be thrown on the defensive and obliged to conform to the movements of the allied armies.

With these objects in view the French troops were hurried to the frontier without waiting to mobilise, and on 28th July Napoleon reached Metz, expecting to find all ready for an immediate advance. All his hopes were doomed to disappointment. The South German States had already definitely thrown in their lot with Prussia. Austria and Italy professed themselves unready for immediate action, and shortly afterwards

backed out of the proposed alliance,—a striking example of what unready nations must expect from their friends. Instead of 385,000 men, in complete readiness for action, Napoleon found little more than half that number, and those in a state of absolute confusion and unreadiness. The actual position of the corps was as follows:—

		Approximate strength.
1st Corps.	Strasbourg, Hagenau, Reichshoffen (near Niederbronn)	34,000
2nd "	Forbach, St Avold, and between	23,500
3rd "	Metz, Bouzonville, and between the latter and St Avold .	35,800
4th "	Thionville, Sierck	26,000
5th "	Saarguemines, Bitché	15,000
6th "	Chalon ^s , Soissons, Paris	30,000
7th "	Belfort, Colmar, Lyons	10,500
Guard.	Metz	20,500
Total		195,340

The 2nd Reserve Cavalry Division was at Luneville; the 3rd at Pont-à-Mousson; strength, respectively, 2600 and 2200. The 1st Cavalry Division was *en route* from Algiers. The Reserve Artillery at Nancy.

It will be seen that the corps were far from concentrated, the divisions being scattered in villages often far apart. The strengths given include cavalry, artillery *personnel*, engineers and infantry. Reservists were coming in daily and continued to do so for a week afterwards.

During the next few days after Napoleon's arrival, disillusionment and doubt resulted in orders and counter-orders which added to the confusion. Vacillation reigned at French headquarters, and soon communicated itself downwards, to the great discouragement of all ranks. Meanwhile the German concentration was rapidly approaching completion.

Frontier lines
between the
armies.

Map 15.

As soon as there was no longer any chance that the French would advance through Rhenish Prussia unopposed, a main element in the problem of the campaign—namely, the configuration of the lines separating the hostile forces, and the consequent relations existing between their fronts—was ascertained. Those lines form a strongly-pronounced angle, the one side of which divides Rhenish Prussia and Rhenish Bavaria from France; the other ascends the Rhine from the confluence of the Lauter to Basle.

The chief military obstacle which opposes itself to the invasion of

France from Germany is the line of the Vosges mountains. Leaving a gap between themselves and the Jura, in which lies the road from Basle by Chaumont to Paris (taken by Schwartzenburg's army in 1814), they run northward, nearly parallel to the Rhine, and, parted by a broad flat valley from the river, extend into Rhenish Bavaria, whence they subside into the plain at Mayence and Coblenz. In their southern portion they form a serious obstacle to the movement of troops, for the main roads are few and guarded. That from Mulhouse to Epinal is protected in flank by the fortifications and intrenched camp of Belfort. In front of that from Colmar to Saint Dié, stands the fortress of Neu Brisach. Another road to Saint Dié is closed by the fortress of Schlestadt. Another by the pass of Schimek is guarded by Strasbourg. The greatest width of the Vosges is 42 miles, at Colmar. North of Schimek they decline rapidly in height, and are penetrated by the road from Strasbourg to Saarbourg, closed by the fort of Phalsbourg; that from Hagenau to the upper Saar guarded by the fort of La Petite Pierre; that from Hagenau by Ingweiler to Saarguemines, watched by the military post of Lichtenberg; that from Hagenau by Niederbronn to Saarguemines barred by Bitche; while opposite another defile leading by Bitche stands Wissembourg, fortified only by an old wall. About the sources of the Lauter the Vosges entirely lose their mountainous character, and become merely a hilly region.

Description of
the Vosges.

Map 16.

German movements:—

1st to 3rd August.—The VII. and VIII. Corps of the First Army (Westphalians and Rhinelanders), already assembled about Treves, and to south and east of there, were moved south, to threaten the flank of a possible French advance against the 2nd Army. Steinmetz was, however, ordered not to cross a line about half-way between Treves and Saarbruck for the present.

Coblenz to
Saarbruck,
90.

The Second Army had come by rail from Pomerania, Brandenburg, Schleswig-Holstein, Hanover, and Saxony, and, crossing the Rhine from Cologne to Mannheim, moved towards the frontier, chiefly by the line of Kaiserslautern. The cavalry covered the front.

Mayence to
Kaiserslau-
tern, 50.

The Third Army, from Posen, Silesia, Hesse, and South Germany, already assembled in the area Landau, Karlsruhe, Neustadt, Spire, completed its preparations for an advance to the Lauter.

Germersheim
to Wissem-
bourg, 25.

Saarlouis to
Germersheim,
70.

French movements :—

On the 31st July the Guard was at Metz; 2nd Corps, close to the frontier near Saarbruck; 3rd Corps, about St Avoird and to the east of there; 4th Corps, Bouzonville and to south of it. These Corps formed the main group under Napoleon's direct command. M'Mahon (I. Corps) was at Strasbourg with detachments farther north at Hagenau, and near Niederbronn. Connecting the I. Corps with the main army were two divisions of the V. Corps at Saarguemines and one division of the same corps at Bitché. The VII. Corps was still assembling at Belfort, the VI. Corps at Chalons.

On the 2nd August Frossard (II. Corps) drove a Prussian outpost from Saarbruck, and occupied the town, with his main body on the heights west of it. During this operation the 4th Corps pushed a reconnaissance towards Saarlouis, the 3rd Corps was held ready to reinforce at either point: the 5th Corps made a simultaneous threat from Saarguemines. Although very slight opposition was met with, no attempt was made to advance beyond the Saar. The French were still held back, partly by the incompleteness of their administrative services, partly by defective information which led them to believe that the Germans already had large forces near the Saar.

On the 3rd August, M'Mahon moved one division to Wissembourg. Another was posted between there and Woerth, another at Woerth and Niederbronn. His remaining division was to move from Strasbourg to Hagenau as soon as relieved by the VII. Corps, which had been ordered to send a division to Strasbourg and a brigade to Colmar.

Napoleon had, by now, been forced to recognise that it was too late to carry out his original offensive plans. He had, apparently, decided on no other plan to replace them, and now aimed, merely, at opposing the German advance. No definite scheme of defence was framed, and movements were ordered, and frequently cancelled again, according to intelligence received, which was often conflicting and false.

Prussia having snatched the initiative from her unready antagonist, it became necessary to choose the line of attack.

Choice of a
line for the
invasion of
France.

That, of the two faces of the angular frontier, she should choose the boundary of the Rhenish provinces to advance from, was almost a necessity. For according to the project already stated, all the German forces

had been moved in this direction; and they were now assembled, or assembling, in the space between that boundary and the Rhine from Cologne to Karlsruhe. And being thus on the side of the angle which was parallel to the French communications, they were, as explained in the chapter on the Configuration of Frontiers, in the most favourable position for offence.

It remained, therefore, to select the portion of the boundary of Rhenish Prussia and Bavaria from which to advance.

An advance of the *Right* from Rhenish Prussia would turn the line of the Vosges, and it would menace most decisively the French communications. But the corps already assembled there would, in advancing, encounter the mass of the front line of the French, and the second line at Metz and Nancy: the strong places, Thionville and Metz, would be serious obstacles on that side when supporting large forces in the field; and in case of a reverse the Prussians might be cast back on neutral territory. The 1st Army was far too weak to attempt such an operation by itself.

The Army of Prince Frederick Charles was opposite the *Centre* of this front, but so far from the frontier that no immediate effort could be made with it, though it was well posted to eventually combine with the First Army, or to defend that district from an advance of the French.

The *Left*, under the Crown Prince, was assembled in great force about Landau, and between there and the Rhine. Only the VI. Corps was still in rear. The greater part of the Third Army was therefore on, and near, the extremity of the French front, which at Wissembourg offered its flank to the enemy's attack. The nature of the country, hilly and wooded, afforded ample means for concealing a sudden advance from the French, whose intelligence was extremely meagre or delusive, and whose outpost duties were shamefully neglected. At this point, then, the whole weight of the Third Army might be brought to bear on a single division, supported at most by a single corps. No disastrous consequences need follow a repulse of the Prussians on this side; while a successful action, followed by the passage of the Vosges, would place the Third Army in rear of the French line, and force it to fall back under penalty of being hemmed in against the Belgian frontier, with the 1st and 2nd Armies assailing it from the side of Rhenish Prussia; while the victorious Third Army, by gaining the Eastern Railway, would sever the

Reasons for
operating by
the Prussian
left.

communication between Paris and Strasbourg, would deprive the enemy of a main line of supply, and would gain the most direct and least protected line to the capital.

It was probably, mainly, on such considerations that the Crown Prince was ordered to attack.

German left
takes the
offensive.

4th August.—The corps of Ladmirault and Bazaine were spread by divisions along the frontier from the Saarlouis-Metz road to Saarguemines, extending about 35 miles, and the entire front of the French army, from the Boulay-Saarlouis road on the left, to Wissembourg on the right, was about 80 miles.

Wissembourg
to Woerth,
13.

The heads of the columns of the Third Army concentrated in an attack on Wissembourg, and drove out the French division, which retreated towards Woerth.

French right
concentrates
for defence.

5th August.—M'Mahon took position for battle at Woerth. He covered there the railway from Bitche to Strasbourg, and the defiles by which the enemy might turn the French strategical line, and strike at the Paris-Strasbourg railway.

A division of the 7th Corps from Belfort reached Hagenau by rail, and marched to join M'Mahon.

De Failly's corps was placed, by a telegraphic despatch from the Emperor, at M'Mahon's disposal, and he summoned it to join him in the position he had taken. De Failly's divisions from Saarguemines accordingly moved on Bitche, except one brigade which awaited the arrival of a division from the 3rd Corps, and was, in consequence, eventually unable to rejoin De Failly.

The Third Army was approaching the Sauer; its advanced-guards were on the east bank of that stream.

6th August.—De Failly failed to reinforce M'Mahon, except by the late despatch of one division, which reached him only in time to cover the retreat.

German left
defeats French
right.

The Third Army (except the VI. Corps and Prussian Reserve Cavalry) attacked and defeated M'Mahon. The French fled through Hagenau, Niederbronn, and Ingweiler, and reached Saverne in great disorder. De Failly's division, which reached Niederbronn at the close of the action, retired towards Bitche. The Germans did not immediately pursue M'Mahon in force.

Woerth to
Saverne, 27.

Frossard, at Spicheren, was attacked by the leading divisions of the First Army, supported by part of the 2nd Army. Defeated, his corps was, by the direction of the attack, forced to retire towards Saarguemines.

German right
defeats French
centre.

Bazaine's division at Saarguemines was withdrawn to join another at Puttrelange.

S. Avoird to
Spicheren, 15.

The Guard was at Courcelles.

French movements:—

7th to 13th August.—M'Mahon retreated by Saverne, Saarbourg, Lunéville, Neufchateau, making for Chalons.

Saverne to
Chalons, 175.

By the actions of the 6th, De Failly found a victorious enemy on each flank and retreated by La Petite Pierre, following M'Mahon at two marches in rear.

The corps of Bazaine, Ladmirault, Frossard, and the Guard, with part of Canrobert's corps from Chalons and Paris, and one of De Failly's brigades which followed Bazaine from Saarguemines, assembled before Metz. Bazaine took command of this army, which on the 12th was in position before the eastern forts of Metz. His instructions were to withdraw to the left bank for a retreat upon Verdun.

Metz to the
frontier, 85.

German movements:—

The First Army was advancing towards Metz, its leading divisions on the Nied.

The Second Army moved towards Pont-à-Mousson, which one division occupied.

Metz to Pont-
à-Mousson,
19.

Its cavalry had reached the passages of the Moselle between Metz and Frouard, and, on 13th August, succeeded in cutting the railway near Dieulouard, and forced some trains just then coming up from the south to return. These trains contained units of the VI. Corps, which were thereby prevented from reaching Bazaine.

The Third Army moved by several roads across the Vosges upon Nancy, detaching the Baden division to besiege Strasbourg, and small bodies to attack Bitche, Lichtenberg, La Petite Pierre, and Phalsbourg.

14th August.—The withdrawal of the French army to the western bank was already in progress, only part of the 3rd Corps remaining in position, when the advanced brigades of the First Army, supported by the nearest troops of the Second Army, attacked. The 4th Corps, then partly across the Moselle, was recalled to meet the enemy; the retirement of a con-

siderable part of the army was stopped; and at the close of the action the 3rd and 4th Corps, and several divisions of other corps, remained on the right bank of the Moselle.

Pont-à-Mous-
son to Thiau-
court, 13.

A division of Prussian cavalry was at Thiaucourt—the advanced-guard of the X. Corps was between Thiaucourt and Pont-à-Mousson.

Pont-à-Mous-
son to Nove-
ant, 10.

The X. Corps at Pont-à-Mousson.

III. }
XII. } on the road to Pont-à-Mousson.

Buchy to
Pont-à-Mous-
son, 13.

IX.—Buchy.

II.—behind the IX.

Guard—Dieulouard.

IV.—on the R. Seille east of Dieulouard, connecting the Second with the Third Army.

Pont-à-Mous-
son to Toul,
20.

Main body of the Third Army was approaching Nancy. A squadron of cavalry from the Guard Corps summoned Toul.

Metz to Ver-
dun, 40.

15th August.—The French Army intended to resume the march on Verdun, which had been interrupted by the German attack.

Metz to Mars-
la-Tour, 16.

The 2nd Corps was to march by Rezonville and Mars-la-Tour, followed by the 6th, the Guard, and the Reserve Artillery.

The 3rd and 4th Corps were to move by Jarny and Etain.

A division of Reserve Cavalry accompanied each column.

The delay caused by the fight of the 14th, resulted in the proposed movement being postponed. The 3rd Corps only reached the plateau west of Metz late on the night of the 15th, while only part of the 4th Corps had then crossed the Moselle. The remaining corps therefore waited round Rezonville on 15th.

The retreat of the French being evident to the Germans, their next movement was made with the design of intercepting it.

The I. Corps remained before Metz.

VII. Corps. East of Frontigny

VIII. " South "

IX. " near Pommerieux

II. " near Hans-sur-Nied

} To cover the passage of the Moselle
by the Second Army.

The remaining corps continued their march to the Moselle. The X. Corps continued the passage, and pushed one division to Thiaucourt. The III. Corps crossed by bridges thrown at Champey and Noveant, its artillery at Pont-à-Mousson; a small detachment reached Gorze.

The 6th Cavalry Division was a little east of Corny; the 5th Cavalry Division near Mars-la-Tour.

The IX. Corps was directed to follow the III., and the XII. to follow the X. IV. Corps—Marbache. Guard Corps—Dieulouard.

16th.—The III. Corps, supported later by the X. (coming up from the line Thiaucourt-S. Hilaire), with the two cavalry divisions, attacked Bazaine's army, which formed in the course of the engagement from Gravelotte to Mars-la-Tour, and drove his centre and right off the Metz-Vionville road. Noveant to Vionville, 7.

Parts of the VIII. and IX. Corps took part in the action shortly before its close.

17th.—Three additional bridges were thrown over the Moselle at Corny. The VII. Corps crossed by them, and, resting its right on the Moselle, extended its outposts thence to Gravelotte. The VIII. Corps was at Gorze. The IX. Corps took post north-west of Gorze. The XII. and the Guard marched on Mars-la-Tour, and bivouacked near there.

The IV. Corps had reached Toul on the 16th, but found the fortress there could not be seized by a *coup-de-main*. It moved westward from Toul on 17th. The I. remained as before. II. to Pont-à-Mousson. III. Vionville. X. south-west of Vionville.

The French army swung back on its left, and took position from Jussy to Roncourt, facing nearly west.

18th.—The five corps of the Second Army and the VIII., all pivoting on the VII. (next the Moselle), advanced in echelon to the road from Gravelotte to Jarny. The French position being ascertained, the Second Army changed direction, advancing on the front from Malmaison to St Marie-aux-Chênes, the II. Corps moving from Pont-à-Mousson to support the right wing. Successively arriving opposite the French position they engaged throughout the front. A brigade of the I. Corps took part in the action from the heights on the east bank opposite Vaux.

The left and centre of the French position proved too strong to be captured, but the French right was turned and completely defeated at nightfall, and fled within the forts at Metz. Early next morning the remainder of the French army also withdrew into Metz.

German movements:—

19th to 25th August.—Seven corps formed the investment of Metz.

The remaining three, with the 5th and 6th Cavalry Divisions, were formed into a Fourth Army, under the Crown Prince of Saxony, which moved westward from the Moselle and made an unsuccessful attack on Verdun with the corps on its right, which, leaving a brigade to watch the place, passed the Meuse above and below it, the positions of the Army on the 25th being these:—

XII. Corps—Dombasle and Lempire.

Guard—Triaucourt.

IV. Corps—La Heycourt.

Headquarters—Fleury.

The Third Army continued its march towards Chalons, and on the 25th took Vitry with its advanced cavalry, its halting-places on that day being as follows:—

I. Bavarian—Bar le Duc.

II. Bavarian—Chermont.

V. Corps and Wurtem- }
berg Division— } Heiltz and east of there.

XI. Corps—Vitry and east of there.

VI. Corps—South of St Dizier.

Headquarters—Revigny.

French movements:—

M'Mahon had united in the camp of Chalons the 1st Corps from Woerth, De Failly's from Bitche, Douay's from Belfort, and the newly-formed 12th Corps, with two divisions of Reserve Cavalry, numbering in all about 120,000 infantry and cavalry.

Camp of
Chalons by
Rheims to
Rethel, 40.

Considering the position of Chalons untenable, he moved on the 21st to Rheims; his intention being to fall back towards Paris, resisting the German advance. A report from Bazaine, however, that he intended to break out of Metz, combined with orders from Paris to move to his help, resulted in M'Mahon moving towards Rethel on the 23rd. The movement was slow, and on 25th his army was in the triangle Rethel—Lechene—Vouziers.

26th to 28th Aug.—The German leaders became aware on the 25th of the direction of M'Mahon's march. The Third and Fourth armies then heading west, in an echelon left in front as just described, thereupon wheeled to the right and moved north, with the objects of preventing M'Mahon from reaching Metz, and hemming him in against the Belgian frontier.

Vitry to
Suippe, 30.
Clermont to
Buzancy, 24.

M'Mahon continued his movement eastward.

29th August. Germans—Fourth Army. On and behind the line Rethel to
Mouzon, 35

Stenay-Buzancy.

Third Army. At Grand Pré and to south
and south-east of there. 4th Cavalry
Division, Vouziers. XI. Corps, south of
Vouziers.

French—1st Cavalry Division and 12th Corps near
Mouzon (on right bank of the Meuse).

5th Corps, Beaumont.

7th " Oches.

H.Q. and 2nd Cavalry Division, Raucourt.

30th Aug.—The Fourth Army drove the 5th French Corps through Beaumont on Mouzon. The 7th French Corps retired before the Third Army, the head of which reached Raucourt. Under the irresistible pressure of the German forces, the movement towards Bazaine was of necessity abandoned, and the whole army retired in disorder down the Meuse. The 1st and 5th Corps reached Sedan.

31st Aug.—The remaining French corps retired on Sedan.

The Fourth Army was at Mouzon, Mairy, Carignan, with detachments further north.

The Third extended from near Remilly to the Meuse west of Donchery, where a division crossed.

1st Sept.—The Fourth Army advanced towards Sedan on the east bank of the Meuse. Of the Third Army, the two Bavarian corps advanced on the left of the Fourth Army. The Wurtemberg Division was near Donchery, and the V. and XI. Corps, crossing there, and approaching the right of the Fourth Army, completed the circle round Sedan. The battle that ensued ended in the surrender of the enclosed French army.

COMMENTS.

The angularity of the frontier line, so important at the outset, ceased, when the French front was driven back, to have any significance, for reasons stated in the chapter on the Configuration of Frontiers.

Problem of
double against
single line in
1866.

In the war of 1866, the Prussians had adopted the system of operating in distinct armies, by distinct but convergent lines, against a concentrated enemy. Whether their superiority of force in that campaign was sufficient in itself to counterbalance the objections to the double line, was never fully put to the proof, because the delays of the Austrians prevented them from resorting to the proper mode of action against a divided enemy—namely, to oppose a retarding force on the one side, and a preponderating force on the other, with mutual support and concerted action.

And in 1870.

In 1870 a certain independence in the operations of the First and Second Armies on the one hand, and of the Third Army on the other, is recognisable. While the Crown Prince was passing the Vosges his communication with the other leaders could only have been by the telegraph lines in his rear; and he continued to move on a distinct line towards Chalons, while they advanced on Metz. It might therefore at first seem that the Germans were operating by a double line. But their base—namely, the Rhine from Coblenz to Gernersheim—was common and continuous, and their main lines of advance were never more than from thirty to forty miles apart, so that their flanking troops and outposts must generally have been nearly within a march of each other. These conditions are evidently different from those, for instance, in which the Allied armies marched towards Paris in 1814. On the other hand, the French made no attempt to oppose division by concentration. With little more than half the force of their enemies they occupied numerous points of a line at least as greatly extended, and were thus likely to be inferior at every possible point of attack. In the case of this campaign also, then, the strategical problem of the single against the double line receives no further elucidation.

How the
French might
have con-
tested the
frontier.

With the disparity of force existing in this campaign, it must be doubtful whether the French, if in other respects more equal to their adversaries than they proved to be, could have successfully maintained a forward position. But had they been so well informed as they should have been of the intentions and movements of the enemy up to the 6th August, they might have contested the frontier line with very different results, even if at last compelled to retire by superior numbers. The unmeaning dispersion of their divisions, and the movements, fatiguing to the troops, and

without result on the battle-fields, and therefore eminently false movements, which took place, were due to the facts, first, that they had intended an offensive campaign, for which they found themselves unready; and, secondly, that the Government feared the effect on the country of the withdrawal and abandonment of territory necessary for the defensive campaign which the circumstances dictated. Their course, if they were resolved to defend the frontier, seems clear. Nothing but superior concentration, in conjunction with a proper use of the topographical advantages for defence, could avail against numbers so disproportionate. A retarding force on one side of the theatre should have gained time for the action of an army capable of striking a blow on the other. Two circumstances pointed to the Crown Prince's line of advance as that on which the French retarding force should be placed: 1st, it lay through the most difficult and defensible country; 2nd, the retreat might be conducted for some time without laying bare the communications of the co-operating army on the other line. At the same time, the necessity of covering the railways rendered it desirable that the retarding force should be strong enough to oppose the enemy's march all the way from the Lauter to the Sauer, without committing itself to a pitched battle. The two divisions of which the 7th Corps at that time consisted, and one of the 5th Corps, joined to his own corps, would have given M'Mahon the means of effective action of this kind, with a probable heavy balance of loss against the assailants. Meanwhile the 2nd, 3rd, 4th, 6th Corps, Guard, and remainder of the 5th Corps and the Reserve Cavalry, would have formed an army of nearly 160,000 infantry and 20,000 cavalry with which to fall on the heads of the columns of the First and Second Armies advancing on the Saar. Looking at the situation on the 6th, it seems impossible to doubt that their advance might have been roughly checked, and that the French, if compelled by superior numbers to fall back, would have retired with a very different aspect on the prepared line of the Moselle.

The remarks in Chap. I., Part. II., on the advantage of assuming the offensive, could receive no more forcible confirmation than in the condition of the French armies during the retreat to the Moselle, disorganised and disheartened by the heavy defeats they had suffered in consequence of fighting pitched battles without concert or concentration.

Cases illustrated by the war.

That the line of lateral communication should be not coincident with,

but in rear of, the front of the army, as asserted at p. 29, is confirmed by the case of the Saarguemines-Hagenau railway, which, rendered precarious from the outset by the German enterprises, was lost with the first partial defeats.

A case of separation resulting from the attempt to cover two distant and divergent objects is supplied by the result of the battle of Woerth. M'Mahon committed himself to a pitched battle in the endeavour to maintain his communication with the corps at Bitché on the one hand, and to cover the Paris-Strasbourg railway on the other. Defeated, and driven on the railway, he never recovered his connection with the army with which he should have co-operated.

Before the event it would have seemed incredible that regular troops like those of M'Mahon, under a practised commander, should have been unable to pause or exert any influence for good in the theatre of war till an incessant retreat for nine days had carried them 200 miles from the scene of their defeat. With proper discipline and control, there was nothing in the events of the 6th August to prevent the united French forces from taking up the line of the Moselle, with their right across the railway at Frouard, where an intrenched camp and depot might have been formed. The attempt to force this line must have been a dubious enterprise; to turn it on either flank must have entailed the exposure of the communications of the turning force, or the separation of the turning and covering forces by the Moselle; in fact those opportunities which able commanders should desire their adversaries to offer. The abandonment of such a line without a general action was proof of hopeless inferiority.

A new and striking instance of the retarding of an army by an inferior force during an operation (Chap. I., Part. IV.) is supplied by the attack on Bazaine's rear at Borny on the 14th August, by the heads of the columns of the First Army, while the Second Army was moving to intercept his retreat. The previous delay in crossing the Moselle was rendered fatal by the action at Borny.

The German advance on Vionville is an example of forcing an adversary to form front to a flank. Bazaine's action in the battle was founded on a total misappreciation of the relation of a fortress to an army in the field. Instead of regarding it as a pivot of manœuvre to be relinquished when its relevancy ceased, he treated it as his actual base. If he had quitted his

hold of it, and extended his right with the successive reinforcements to his line of battle, he would have succeeded in forming front across the left of the German attack, and the close of the battle would have left him astride the roads to the Meuse facing Metz. That the enemy should be between him and Metz, was of trifling import compared with their being between him and Verdun. His anxiety for his left was the anxiety of a temporising mind, which prefers postponement of a crisis to vigorous enterprise; and in clinging to Metz he acted like one who, when the ship is foundering, should lay hold of the anchor.

Considering the operations from the 16th to 18th August, with reference to Chap. VII., Part III., it is evident that, being executed within the radius of a single march, they fall in the class of those which are restricted to a small area, and in which intercepting movements can be directed almost with certainty. Part of the French army being still visible on the field of Borny on the 15th, it was to be expected that the heads of the German columns directed on Mars-la-Tour and S. Hilaire would intercept them on the 16th either on that road or the Jarny road. And though the Second Army on that day, as well as its adversary, formed front to a flank, yet it might do so the more confidently because of the position of the Third Army between Nancy and Bar-le-Duc. The support it would derive thence in case of a reverse, and its own strength, lent assurance to the movement.

The circumstances under which, on the 18th, it prolonged its movement against the enemy's communications by placing itself across them, remove it from the class of those which are described in that chapter as entailing additional risk without corresponding advantage. For the great extension and consequent weakness of the front of the intercepting army, pointed at as so perilous, did not exist, both armies being on a front no larger than their order of battle required. This circumstance, in conjunction with the great superiority of force, the strength of the wing next the Moselle, and the relative position of the Third Army, annulled the ordinary risk of the situation of the Second Army in an engagement on the left bank. A more doubtful question is the expediency of the attack of the 18th. The tactical advantages of the defence have been of late so greatly augmented, that it is more than ever desirable to throw on an adversary the onus of making the attack. The interception of the

French was complete, and they could only clear a road to Verdun by becoming the assailants. Attempting to move on Thionville, they would have been headed, or attacked in flank, on the march. As it was, the Germans attacked them, with heavy losses and doubtful issue, in a remarkably strong position. Although the result was to drive the French within their works, and to render the investment easier, yet the ensuing operations were so precarious, so protracted, and occupied a force so vast, that, taken in conjunction with the uncertain issue and certain losses of the attack, the precedent is by no means one to be unhesitatingly followed.¹

Looking to the French side of the situation, the course of the intercepted army was free from the additional difficulty which the necessity of assembling its fractions would have created. It was already united, and the only problem was the selection of the point at which to break through the enemy. It may be granted that, notwithstanding previous delays, and the possession of the passages of the Moselle by the Germans, the march, as planned for the 15th and 16th, offered reasonable assurance of bringing the army to the Meuse, not indeed unimpeded or unmolested, but without serious disaster. The force already available on the Vionville road might fairly be calculated on to repel the commencement of any possible attack, and the successive reinforcements of the French should have arrived faster on the decisive points of the field than those of the Germans. There was a possibility, even a fair probability, of redeeming the character of the retreat by not only gaining the Meuse, but gaining it after a successful engagement. The battle of the 16th deprived the French of a line of retreat, but left their adversaries powerless, during the 17th, either to renew the attack or to make reconnaissances. The roads of Jarny and Briey were still open; two marches would take the Army to Verdun, and supplies of provisions and ammunition from that place might have met them on the road. On the other hand, it could scarcely be calculated on that the Germans, with their superiority, should be unable to resume active hostilities on that day; and to carry off such a host as Bazaine's by somewhat circuitous marches, on few roads, covered by no obstacle or defensive line, with a powerful and enterprising enemy

¹ Delay in attacking might, however, have given the French time to try some daring enterprise such as is suggested on pages 341 to 344.

on the flank of the lengthened columns, must always be an operation full of risk; and, finally, the Germans were in possession of a road to Verdun shorter than those by which the French would move, thus rendering the situation one in which (as said at p. 82) a catastrophe is only postponed by the existence of such lines of retreat in rear of an army in that position.

After saying so much, however, the facts remain that the German operations extended over a half circle, crossing as one of its radii a great river, and that the French army was concentrated on the chord. It was certain that the Germans could not be in condition to meet the concentrated attack on one and also on the other side of the river; either they must be in inadequate force on both sides, or must be concentrated on one at the expense of leaving the other unguarded. That in such cases the boldest course is the most likely to succeed, and what that course is, are points which have already been indicated in this work. Let us see, then, what would have been the chances in favour of an effort to break through by traversing the communications of the enemy.

That the 17th was a day on which the French were absolutely free to execute their designs without molestation, is shown by the fact that on the 18th the German Second Army advanced for hours in a wrong direction before discovering the French position.

We will suppose, then, that instead of taking up that position, Bazaine, seeing that great forces were engaged in intercepting him, had withdrawn his army into Metz, covered only by the division (of the 2nd Corps) which was to form the garrison of the place, and extending it mainly on the side of Vaux as the nearest point of contact with the enemy; and that orders were given for the following dispositions:—

The Guard to pass the river by the nearest bridges,¹ and bivouac between Montigny-les-Metz and the railway, its cavalry division at its head.

The corps of the first line of battle, 3rd and 2nd (remaining two divi-

¹ There were three permanent bridges—two in the city, one where the railway crosses; the latter was destroyed by the French on the 15th. Other temporary bridges had been made for the passage of the Army on the 13th, and might have been still available—while the river transport, and materials to be obtained on the spot, would have furnished the means of throwing many more. Although the avenues of the town did not offer the facilities which should be found in so important a place, it is assumed, therefore, that the supposed movement was not rendered impracticable by defective communications.

sions of the latter) to cross the river by the southernmost bridges, and bivouac; the 3rd Corps about Le Sablon across the Nancy road; the 2nd in rear of it.

The corps of the second line, 4th and 6th, to pass by the northernmost bridges; 4th Corps to bivouac behind Fort Queuleu heading for the Strasbourg road; 6th in rear of it.

Three days' provisions and a supply of ammunition to be distributed to the troops during the passage through Metz, and in the bivouacs, thereby obviating one of the French commander's great difficulties—namely, to bring supplies of these from Metz to his army.¹

Orders for the 18th:—The cavalry and horse-artillery of the Guard, with a troop of mounted sappers, to move by Augny on Pont-à-Mousson, to observe the passage there, and if possible destroy the bridge. If attacked by superior forces, to retire on Cheminot and Selligny, destroying the bridges. One division of the Guard on Jouy; the other by Augny on Corny; to watch the bridges there, and if necessary dispute the repassage by the Germans. Each division, as soon as the rear of the army should be nearly abreast of it, to move off between the Moselle and Seille, either towards the rear of the army, or on the flank of a hostile corps, which might seek to recross by Pont-à-Mousson and Champey; according to circumstances.

The 3rd Corps, followed by the second, to move on the Nancy and parallel roads, bivouacking south of the road from Cheminot to Buchy.

The 4th and 6th on the Strasbourg road, and parallel roads between it and the Nied, bivouacking from Solgne to Hans-sur-Nied.

The cavalry divisions of the 3rd Corps and 4th Corps to precede their march and cover their front; that of the 2nd to flank the march east of the Strasbourg road. (The cavalry division of the 6th Corps was at Chalons.)

The 3rd and 2nd Corps, with the cavalry of the Guard and of the 3rd,

¹ From the account of the war recently published by the French General Staff, it appears that some of the corps of the French army were not able to reach their allotted positions west of Metz until late on 17th. Judging by this, and by the long time taken (14th to 16th) in moving from east to west through Metz previous to this, Bazaine would have had little justification for any hope of being able to complete the movements proposed by Sir E. Hamley for 17th. The possibility of success would depend chiefly on rapidity of movement, and it would seem that the French army, at that time, was quite incapable of executing rapid and complicated manœuvres.

to fall on any enemy forcing the repassage of the Moselle against the Guard, or to hold the line of the Seille according to circumstances.

The 4th and 6th to fall on the I. German corps, should it seek to molest the march.

Besides a proportion with the advanced-guards, strong detachments of sappers to march with the rear-guards, and with the columns on the outward flanks of the army, to obstruct the communications.

All bridges on the Seille to be destroyed by the rear-guards as soon as all the columns should have passed beyond them. All roads on both flanks forming communications between the enemy and his base to be damaged and obstructed to the utmost.

Beginning the march at 3½ to 4 A.M., at 8 the main French army would have its front from Pommerieux to Pontois, its rear from Pouilly to Frontigny. The division of the Guard at Corny would be in position; that at Jouy would be preparing to conform to the general movement; cavalry of the Guard observing Champey and Pont-à-Mousson.

On the German side we know that at that hour the Second Army was heading for the Jarny road, a long day's march from the nearest passages of the river; the corps of the First Army three and four hours' march from their bridges on the Moselle; the II. Corps across the Moselle, with its head many hours' march towards Gravelotte. Remembering that their order of march and general dispositions were arranged with the expectation of a battle between Metz and Verdun, the reader may calculate for himself the chances of their stopping the march of the French.

The IV. Corps was marching to Commercy on the Meuse, and crossed there on the 19th.

The Third Army was marching from the Moselle to the Meuse, no part of it being east of Toul at the end of its march on the 18th, except the VI. Corps, which was on the Moselle, about 20 miles south of Nancy. Consequently, neither the IV. Corps nor the Third Army could have hindered Bazaine's march.

Resuming the march, the French would have found themselves at the close of it with their right on the Seille at Cheminot, left at Hans-sur-Nied, having entirely traversed the German communications.

On the 19th Bazaine's cavalry would have been on the Nancy-Strasbourg railway, his army near Chateau-Salins, heading for Saarbourg.

Le Sablon to
Pommerieux,
8.

Le Sablon to
Cheminot, 13.

Fort Queuleu
to Hans-sur-
Nied, 15.

Enormous captures of trains would have been made, the roads broken up between the Moselle and the Nied on the communications of the First and Second Armies, and the railway on which the Third Army relied damaged.

See Jomini's
remark at
p. 128.

Besides the supplies captured, the French on passing the Nancy-Strasbourg railway would obtain others by requisition in an untouched district. Directing their march on Strasbourg, they would, by raising the siege, have imparted a victorious aspect to the movement, while the effect on the German armies may be imagined by students of military operations. It may be safely concluded that they would have been much more solicitous to restore their communications than to follow Bazaine.¹

The promptitude with which the Germans proceeded to the investment of Metz shows that they were only giving effect to a foregone conclusion. Yet they had no precedent for so extraordinary an operation as the enclosure of such a fortress and such an army, and must have been inspired only by confidence in their estimate of the vastly increased advantages of defence when they determined to maintain so extensive a line. It is a striking case of foreseeing and applying new conditions of war.

¹ The German official account of the war, published two years after the above appeared in the 3rd edition of this book, contains the following passage. After considering Bazaine's chances of success had he broken out on the westward, the north-westward, or the north-eastward of Metz, it goes on to say :—

“Far fewer difficulties were presented by the local conditions to the south of Metz. A forward movement on this side would find in that terrain, as on the north-east, a large space for development upon both banks of the Seille, along the three great roads to Solgne, Nomény, and Cheminot. Should the bulk of the army of the Rhine make a sudden dash along these roads, while a left detachment shaped its course for Courcelles-sur-Nied, and a second, under the protection of the fortress-artillery, showed front towards Ars and Jouy somewhere in the neighbourhood of Frescaty, in order to detain the VII. and VIII. Prussian Corps in the passage of the Moselle, there was, in view of the position at that time of the investing army, a fairly secure prospect of the sortie being successful, and that too without any very severe struggle. It is true that the French leaders would have been forced in any case to abandon their trains, and even then they would have been sooner or later threatened in flank and rear by the forward pressure of the Corps of the investing army. But Marshal Bazaine might hope in all cases to find his line of march at any rate open, to sever temporarily the but weakly guarded communications of the Germans, and, although not without considerable difficulties as to supply, to escape with a large part of his army to the southward.”

This opinion refers to a time (31st August) when the Germans had been for twelve days investing Metz. If the chances in favour of Bazaine's supposed attempt were at that time so great, how much greater would they have been on the 17th, when the Germans were scattered and unprepared for resistance on that side! In other respects, the above description of the operation in the German official account is a curiously exact abstract of that proposed in detail in the text.

The enterprise of M'Mahon has been generally judged desperate, as being a flank march between a superior enemy and neutral territory. Its peril, however, consisted rather in the uncertainty of the issue, and the irremediable character of a failure, than in the difficulty of the march. At the outset on the 21st he had five clear days for a movement, the extent of which from the Chalons camp, first upon the front Rethel-Vouziers, and thence to Montmedy, did not exceed 70 miles. Had this been attempted with an assured aim, such as the attainment of a fresh base, or the junction with an army commanding a certain area, there would have been no more risk than has often been justified by the end. But in this case, besides the evasion of the First and Second Armies, success must depend on the breaking of the investment by Bazaine, on the junction with him, and on their joint victory over the Third and Fourth Armies before the First and Second could come up. Failing in either of these conditions, not only would the enterprise be abortive, but the army of Chalons would be itself on the verge of destruction.

The project was first entertained by M'Mahon on the assumption that Bazaine's army, moving northward from Metz, would be found at Montmedy, the point indicated in Bazaine's despatches of the 19th and 20th August as in his intended line of march. Moving to Rheims, M'Mahon would rest on that railway on which he must mainly depend for supplies during the operation, would be on the flank of the Germans moving westward by the Chalons-Paris railway, and would preserve his own communications with the capital by the Rheims-Soissons railway. Thus far, then, the movement, though circuitous, was yet, on the assumption that the operation was tentative, and contingent on Bazaine's co-operation, not without justification. The next step to the Aisne at Rethel and Vouziers, though circuitous, was undertaken with the same expectation; it still preserved his hold of the railway, and kept open his line of retreat by the valley of the Aisne, and there was still time (25th) for him to reach Montmedy unobstructed. But on the 27th the progress made had been throughout so slow, that M'Mahon, hearing nothing of Bazaine, and despairing of accomplishing his march in presence of an enemy which had already turned upon him, decided to retreat upon Mezières, the last point eastward whence he could be certain to find his commu-

nication with Paris still open. But here political motives prevailed to impel his army to destruction. The evil of a Government which rests its defective title on military power is not fully manifest till it has experienced reverses in war. It is then, when the nation should be united against the common enemy, that factions tear it, and the necessity for conciliating them pushes military conduct aside.

The fatal consequences of a disaster being obvious in the case of a forward movement on this side, the student may consider the chances in favour of an attempt to traverse the other flank of the Third and Fourth Armies, with which design Douay's Corps coming from Belfort might have halted at Chaumont (saving it much exhausting travel), the 12th Corps joining it there, and the troops from Chalons passing towards the same point by the roads between the Marne and Seine, and by rail through Paris; thence to be directed on the German communications at Nancy and Luneville. Having realised the situation, the student may with advantage further consider the effect on the immediate course of the campaign if M'Mahon, after Woerth, had retreated on Chaumont and Langres instead of on Chalons.

The predominance of the German armies, manifest from the outset, deprives the campaign of much of its value as a strategical study. Perhaps its main lesson is (like one of those derived from the Jena Campaign), that to execute a good general plan with promptitude, decision, and conduct, is of itself to establish an ascendancy over a less confident adversary, and to diminish the chances that he will take advantage of such opportunities as over-confidence may offer. That opportunities were offered cannot be denied. If it be a main object of strategy to be the strongest on the decisive points of collision, it seems to follow that when armies, so superior in the aggregate to the enemy as the Germans were, expose themselves to engagements with a numerical inferiority on their side, there is so far evidence of strategical error. While the Crown Prince was bringing 154,000 men to bear on M'Mahon's force, and afterwards 160,000 on the discomfited remnants which were hurrying to Chalons, the First Army, when approaching the Saar, might have been attacked by superior forces; the attacks on Spicheren and Vionville were made with a numerical inferiority; and the forces employed in the interception of Bazaine, greatly superior on the actual field, were yet insufficient

for the security of the operation. Nevertheless, in all these cases the motive was the excess of an invaluable quality—namely, promptitude to seek and resolution to engage the enemy. These instances proved, too, that the confidence in their own ascendancy, shown by the Germans throughout the campaign, sprang, not from superiority of numbers, but from the excellence of discipline, training, and command which is the proper fruit of the Prussian military system. That system rests on, and confirms what, before the war of 1866, was enunciated in the last paragraph of this book as the moral which its pages would convey. The Prussians seek the attainment of success in war not by confiding in traditions and in the timely appearance of an inspired leader, but as practical men set about a difficult and important task where the conditions of the problems to be solved are highly complex and always varying, and where the machinery to be employed requires the most careful preparation. Each of the indispensable parts which, when associated, constitute an army, has been the subject of their most patient consideration and prevision. The organisation and training of the fighting element has only been a part of their elaborate preparation for war. The strategical problems offered by the frontiers of States with which Prussia, with or without allies, might be at war, have been thoroughly investigated. The topographical features of her own and her neighbours' territories have been laid down with minute accuracy. The supply and transport of her armies have been provided for with such forethought, that not only were the lines of railway specified, but time-tables for the departure, transit, and arrival at its destination, of every corps employed in the war with France, were ready, long before the outbreak of hostilities, for transmission to the centres of organisation. The excellence of the German staff, and of the systems of organisation and supply, was conspicuously shown in the promptitude with which the Third and Fourth Armies, heading west, turned on the 26th August northward on M'Mahon. The operation was, however, greatly simplified by the circumstance that they were echeloned left in front. To turn southward (as in the case supposed in the preceding paragraph) would have been much more difficult, as the lines of supply of the various corps would have crossed.

The new frontier line of eastern France is similar to that which existed before the war, in being salient and angular. But, if the original line

proved disadvantageous for France, all her defects on that side are now greatly aggravated. The Germans will now collect their forces on the Moselle covered by Metz or Thionville, more securely than formerly on the Saar, and will be so much nearer both to Paris and to the communications of Paris with the east of France. Unless she would exist only by the sufferance of Germany, France must fortify the line of the Meuse; and should further form an intrenched camp, with bridges connecting it on both sides of the Moselle, across the railway at Frouard, and with a bridge-head (should the ground permit) on the east bank of the Meurthe. As her Army, while watching the issues of the Vosges, or intending to cross the Rhine, might be cut from a base westward of the Moselle by the descent of a German army from Metz, some point within the angle, near Epinal, for instance, should be selected at which to form an intrenched camp and arsenal. And it will probably (in view of the disastrous failure of the direct defence of Paris) be found expedient to prepare a base southward (at Dijon and Besançon, for instance) for armies which, operating thence, would indirectly defend the capital, by forcing the invader to form front parallel to his communications. In such a case Germany would enter on an offensive campaign with greatly diminished chances of rapid conquest. No longer threatening the communications of the French from Lorraine, she might find Southern Germany threatened with an invasion by Belfort; and, before advancing on Paris, she must, with the remainder of her forces, capture the intrenched camp of Frouard, mask that at Verdun, and beat back the French army southwards to its base.¹

¹ Since Sir E. Hamley wrote this France has fortified her eastern frontier.

PART VI.

CHAPTER I.

THE RUSSO-JAPANESE WAR—1904-1905.

STRATEGICAL NOTES.

(Maps Nos. 17 and 18.)

THE recent war in Manchuria belongs to a class which has been well called "amphibious." The command of the sea was a vital factor, and success could be gained only by combination between Army and Navy. One of the most valuable lessons to be learnt from the war is how these services can mutually help each other, what each can do by itself, and what they may accomplish in combination, under present-day conditions.

The campaign illustrates combination between Army and Navy.

Our information on several points being still limited and not altogether reliable, it is necessary to exercise caution in drawing conclusions for future guidance. At the same time the main outline of events and the main conditions of the struggle are now sufficiently well known to enable us to consider how far they seem either to confirm the experiences of earlier wars, or to warn us that previously accepted principles may require some modification to meet new conditions.

Caution in drawing conclusions is necessary.

GENERAL CONDITIONS AFFECTING THE TRANSPORT OF TROOPS BY SEA.

To understand the opening moves of the campaign, it is necessary to have some knowledge of the general conditions affecting the transport by sea of large bodies of troops. The following notes will serve to give some idea of such operations to students who may not have previously considered them.

Difficulty in protecting transports conveying troops.

Command of the sea a primary condition.

Raids are subject to different conditions from invasion.

Factors affecting the rate of despatch of transports.

War-ships cannot provide accommodation for large bodies of troops, who must be conveyed on merchant vessels, specially fitted up for the purpose. Such vessels are incapable of self-defence,—a fleet of them would be at the mercy of a single torpedo boat. Even an escort of war-ships cannot guarantee their safety when there is a possibility of attack by hostile fleets, since the freedom of manœuvre of the escort would be so crippled by responsibility for the comparatively slow, clumsy, and helpless transports, that it would fight at a great disadvantage. There would also be serious danger of hostile torpedo craft getting in amongst the transports at night. A still more important objection to employing fleets to escort transports is that, so long as the enemy has any war-ships afloat, the proper business of the Navy is to seek them out and destroy them, and it should be left free for that purpose. It may therefore be taken as a principle that, before the over-sea transport of armies can begin, such command of the sea should have been gained as will make the operation reasonably safe. And where prolonged operations of large forces are in question no temporary command of the sea will suffice, because, after the troops have landed, their communications must still be kept open just as in purely land operations. We are here concerned with the operations of armies, not with mere raids which may succeed under conditions that would make the operations of large forces impossible.

Given command of the sea, the rate of despatch of troops depends on the number of suitable transports that can be procured; on the time required to collect them, and to fit them for work for which they have not been specially designed; on the rate at which the troops can be assembled for embarkation; and on the facilities existing at the points of embarkation. Harbours will, of course, almost always be available for embarkation from one's own country. Their size must be considered, also the amount of wharfage accommodation, the depth of water at different states of the tide, and the possible effects of weather. Camping-grounds for large bodies of troops near the harbour are desirable, with good roads thence to the quays; and unless the quays are roomy, traffic will be so congested that it may be impossible to load several ships simultaneously.

The space required on board ship varies with the length of the voyage

to be undertaken. Crowding, which might be borne for a few hours, would be unhealthy and unendurable on a long voyage. Thus a force of 6 British divisions, 1 cavalry division, and a due proportion of "army troops"—complete with engineers, transport and administrative services¹—for a voyage of a week's duration or more, requires ships of an aggregate capacity of 1,271,450 tons—say 255 vessels averaging 5000 tons each. For a voyage of a few hours the same force might be crowded on to about half that number of similar vessels. In either case a considerable number of additional ships would be required for reserves of horses, stores, ammunition, and other requirements. It would seem that the Japanese were packed much closer than is allowed for in the above figures, but their horses and men were small, and they had special carts which could be fitted into a comparatively small space. Even with much crowding, however, it is evident—even in the case of nations possessing a large mercantile marine—that the number of ships required to transport large forces simultaneously can seldom be procured at short notice, and their assembly, in preparation for war, cannot easily be concealed. In 1805 Napoleon contemplated throwing an army across the Channel in a great number of flat-bottomed boats, on which his men were trained to embark very rapidly from the beach, and from which they could disembark with equal ease. In fine weather narrow waters may be crossed in such boats towed by steamers, but, ordinarily speaking, only large steamships are suitable for the over-sea transport of troops, and they require to be specially refitted before they can be used

Proportion
of troops to
transport.

Under favourable conditions, in harbour, single ships can be loaded with men, horses, guns, waggons, &c., in a few hours. The time required to load several ships depends chiefly on the factors already mentioned. The rate of disembarkation is governed by similar conditions when harbours are available; but it must be expected that the first troops to land on a hostile coast may have to be thrown ashore on the beach. This is a difficult operation, affected by weather, tides, distance of anchorage from the beach, depth of water along the beach at different states of the tide, &c.

Time required
for embarking
and disem-
barking.

¹ The fighting strength of this force is 73 battalions, 14 cavalry regiments, 4 battalions of mounted infantry, and 456 guns. For full details of tonnage required *vide* the 'Field Service Pocket Book.' It must be remembered, however, that a considerable proportion of the space allowed is for guns, horses, and waggons; when circumstances permit of a reduction in the number of these the tonnage required would be very much less.

The frontage on which troops can land depends on the extent of suitable beach available. The time and labour involved in moving waggons and guns from the water-line to the roads inland depends on the nature of the beach, and on the distance from the water-line to these roads. If everything is favourable and well organised, a landing on a beach may be carried out very rapidly, but under unfavourable conditions the operation may be difficult and slow, while bad weather may make it altogether impossible for days together.

An invader's first efforts will probably aim at securing a harbour.

It follows that the first efforts of an invader on getting a force ashore will almost always be directed towards securing a suitable harbour for his further operations, and his first landing-place will probably be chosen with this in view. Facilities for moving and supplying the troops, when landed, must be thought of; and the existence of railways, which may be made use of as the invader advances, is an important consideration, especially if his force is considerable. It is also to be noted that in face of serious opposition a landing is almost an impossibility, and a force heavily attacked while landing, even if part is already ashore, will be in a precarious situation.

Difficulty of landing in face of opposition.

Speed of transports.

Moving in fleets, a condition to which merchant seamen are unaccustomed, the average speed of steam transports may be taken at about 10 to 12 miles an hour. When the waters to be crossed are absolutely safe from hostile war-ships, and there is therefore no need for escorts, the transports may be despatched one by one as loaded; they can then move faster than when working in fleets.

Comparison between movements by sea and movements by railway.

It has been pointed out (Part I.) that in land operations the number and direction of the railways available may afford a clue to an enemy's points of concentration, to the time he will require to assemble his troops, and to the probable direction of his subsequent movements. The movement of troops by sea is not subject to the same restrictions. The harbours most convenient for an enemy's embarkation will no doubt be known, and information may possibly be obtainable as to where his transports are assembling. But once the transports sail it will seldom be possible to foresee their intended objective with any certainty. Feints are comparatively easy to arrange, and a fleet seen off one point of the coast in the evening may be landing troops a hundred miles off—to either side—at daybreak next morning. For these and other reasons armies

conveyed by sea usually have far greater possibilities of keeping their intended line of invasion secret than have those which from the commencement operate altogether by land. Conversely, a nation possessing an extensive coast-line open to attack has a very difficult problem to solve. If it is attempted to guard every possible landing-place the troops will be scattered and liable to defeat in detail. If they are concentrated they will probably have no opportunity of opposing an effective resistance to the first landing, and may find themselves badly placed in relation to the line of invasion selected by the enemy.

Difficulty in disposing troops to resist an invasion by sea.

PRELIMINARY NOTES ON THE RUSSO-JAPANESE WAR.

The events which led to the war between Russia and Japan are so generally known that it is only necessary here to draw attention to a few special points which exercised an influence on the strategy of the campaign.

The great mass of the Russian army had no personal sense of grievance whatever against Japan, probably the majority of the soldiers had hardly ever heard of that country. The Japanese, on the other hand, men and women, high and low, had for years been nursing a grievance against Russia. They bitterly resented the way in which they had been deprived of Port Arthur, ten years before, for Russia's benefit. It was not only the sense of injustice that rankled in their minds, but the helpless feeling of inability, at the moment, to resist it. It is probable that much of this national sentiment was centred on Port Arthur itself, the monument, so to speak, which marked where national pride had been buried. Since 1895 Russia, by constant aggression and a somewhat contemptuous treatment of her small rival, had done all that was required—if anything was required—to keep the flames of resentment alive. To resentment was added well-founded apprehension. If Russia absorbed Korea, as it seemed evident that she intended to do, not only would any hope of Japanese expansion be gone, but her very independence would be seriously threatened with so mighty a giant at her doors.

Difference in the national feelings aroused.

The political objects of Japan were clear not only to her statesmen but to the whole population, with the result that the whole nation worked

Political objects of Japan.

with willing self-sacrifice, in combination, towards the desired end. Those political objects briefly were: (1) To secure a paramount influence in Korea. (2) To regain Port Arthur—a mainstay of Russia's naval power in the Far East. (3) To drive Russia so far back as to prevent her from ever being able to menace Japanese interests with equal ease.

The theatre
of war.
Naval bases.

The following are the chief points to note in the theatre of war. Russia had only two naval bases in the Far East—Vladivostock and Port Arthur. The former, on the Sea of Japan, is usually ice-bound for three months during the winter. Port Arthur is practically an ice-free port. The direct communication between these ports, through the Korean Straits, is controlled by Japan. The Japanese Island of Tsushima, strongly fortified, and affording a base for torpedo boats, divides the Korean Straits into two channels, respectively 25 and 27 miles wide. The eastern entries into the Sea of Japan from the Pacific are likewise controlled by Japan; consequently Vladivostock is almost completely isolated from the open Pacific. This fact added greatly to the value—to Russia—of Port Arthur. It is not a large harbour, its dock accommodation is very limited, and the entrance to the harbour is narrow and obstructed by sand-banks; moreover it lies 400 miles up the Yellow Sea, which narrows there to about 60 miles. But, compared with Vladivostock, it would be the most accessible base for naval reinforcements arriving from Europe. As against the two Russian bases Japan possessed several ports which gave her more choice of naval bases and far superior dock accommodation for repairs.

Strategical
importance
of Korea.

The position of Korea, lying between the Yellow Sea and the Sea of Japan, is the next point of importance to note. The eastern coast of this peninsula is generally precipitous, with few bays. The western coast is deeply indented, with several harbours. On the southern coast there is a good harbour at Masampo and another harbour at Fusan. If Russia succeeded in establishing herself in Korea she would secure the use of its harbours, and she would be in a position to dispute the control of the Korean Straits and of the Sea of Japan. To prevent this it was necessary for the Japanese to forestall the Russians in the occupation of Korea. Besides this, Korea offered to Japan a possible line of approach to Manchuria which would be available even if she failed to gain definite command of the sea, since, unless she were completely defeated at sea,

she could hardly be prevented from passing troops into Korea *viâ* Fusan, and the protection of the communications across the narrow straits would be comparatively easy.

Korea, an independent empire since 1894, is about 400 miles long from Fusan to the lower Yalu, and averages about 130 miles wide. It is mountainous and difficult to traverse, but from Fusan to Seoul (the capital) a railway was under construction, of which some 40 miles had already been completed before the war began.

The boundary between Korea and Manchuria is marked by the rivers Yalu and Tumen, rising near one another and flowing in opposite directions.

Immediately west of this boundary, and extending from Port Arthur to Kharbarovsk on the Amur, lie ranges of mountains,—west of which again lie the valleys of the Liao Ho and Sungari rivers. These ranges of mountains, though not very high, form a serious obstacle to movement. The plains to the west of them are flat and richly cultivated,—seamed by rivers running westward in deep muddy beds into the Liao Ho,—and studded with strongly built native villages.

Mountain-ranges in eastern and southern Manchuria.

The country west of these mountains.

No roads worthy of the name exist in the theatre of war. So-called roads run along the eastern coast of the Liao-Tung peninsula from Dalny to Antung, and along the western coast from Port Arthur to Liao-Yang and Mukden. Another road leads from Antung, at the mouth of the Yalu, over the mountains by the “Motienling” pass to Liao-Yang. There are several tracks across the mountains, connecting the lower Yalu with the valleys of the Liao Ho and the Taitse Ho; and, further south, connecting the roads which run along the coasts of the Liao-Tung peninsula. Tracks also run north from the Motienling road, across the Taitse Ho, eventually leading into the Liao-Yang-Harbin road. In the Liao Ho valley the numerous villages are connected by a labyrinth of bad tracks. None of these communications are suited for the passage of the wheeled transport of an army. In winter (middle of November to end of March) they are frozen hard and comparatively easy to traverse, but the climate then is almost too severe for military operations. During the thaw, about the beginning of April, they become nearly, if not quite, impassable. In the summer rains (July and August) they are equally difficult. In the drier summer months they are heavy with dust and deep ruts. Thus,

Roads.

although infantry and even cavalry could move with some freedom, the passage of artillery and transport was often almost impossible, and never easy.

Railways.

The land communication between European Russia and the Pacific coast consists of one single line of railway over 5000 miles in length. This railway, in 1904, was interrupted by Lake Baikal, which could only be crossed in winter on the ice and in summer by boats, and which was practically altogether impassable while the ice was breaking up, about the end of April. Branch lines, as shown on the map, connect the main railway with Stretynsk on the upper Amur, with Kharbarovsk on the lower Amur, and with Port Arthur. There are also short branches connecting the main line with Niuchuang and with Yentai coal-mines (near Liao-Yang). At the beginning of the war the capacity of the main railway was limited to the despatch of about four trains a-day each way, the average speed being some 15 miles an hour. The journey from Europe was, at best, a matter of fifteen days, under conditions most trying for men and horses. At times, when Lake Baikal was impassable for instance, the journey often took twice or thrice as long. Besides this main line, it is necessary to notice the railway from Peking to Hsin-min-ting, with a branch to the Liao Ho opposite to Niuchuang; and the railway from Chemulpho to Seoul. A railway from Fusan to Seoul had been commenced, as already mentioned, before the war. The Japanese pushed on the construction of this latter line during the war, and also an extension of it to Wiju. In Japan itself there are several railways, the detail of which need not be considered here.

Rivers.

The chief rivers offering possible lines of supply are the Amur, the Sungari, and the Liao Ho. The Amur is frozen from December to the middle of May. At other times it is navigable up to Stretynsk. The Sungari, when not frozen, is navigable to Petune. The Liao Ho is frozen from November to the middle of April; in summer it is navigable by small junks for 200 miles from Niuchuang. The Yalu, frozen from the end of November to the middle of March, is at other times navigable by small junks up to 50 miles from its mouth. When frozen the rivers can be used as sleigh routes.

Permanent telegraphs.

Port Arthur was connected by telegraph with various stations along the railway. From Seoul telegraphs ran to Fusan (connecting with Japan), Gensan, and other points.

Large quantities of supplies are procurable locally. It is probable that the Russians obtained most of their food-supply and a good deal of their transport in the country, thus leaving the railway comparatively free for the transport of troops and other necessities, such as ammunition and ordnance stores. But for these local supplies it would have been impossible to concentrate and maintain, by a single indifferent railway, the large forces Russia employed. Japan also procured a considerable proportion of the supplies for her armies locally.

Russia was able to draw numbers of troops, and doubtless some of their requirements, from Siberia. Except in so far as this was possible her armies were based on European Russia. The Japanese armies were based on their own islands, comparatively close to the theatre of war. Once command of the sea had been secured the Japanese communications as far as the mainland presented no difficulties, but when the armies moved inland from the coast the supply problem became serious. Although special coolie corps had been organised, and large numbers of Chinese carts procured, the conditions already described made it impossible to supply large forces by road. The Liao Ho was the only waterway leading in the required direction, and for the first six months of the war the Russians held control of it. No railway was available until the Port Arthur-Harbin line could be captured, and even when captured it could not be utilised until probable damages had been repaired and adequate rolling stock provided. Unless sufficient rolling stock could be captured, a most unlikely contingency, it would have to be brought from Japan. This would require many ships and take considerable time. Moreover, the existing rolling stock and railway *personnel* in Japan were probably fully employed there in transporting men and munitions of war to the coast, and it is not known how far the Japanese had prepared beforehand for possible railway requirements in Manchuria. Even when rolling stock had been brought from Japan, it was of a narrower gauge than the Manchurian line, which had to be altered to suit it.

Land bases
and communi-
cations there-
from.

The inhabitants of Manchuria looked on the Russians as enemies. Without loving the Japanese they were willing to assist them in driving the Russians out of the country. As the Japanese somewhat resemble the natives in appearance, it was comparatively easy for their spies and secret agents to mix with the population. Such means of gaining intelli-

Facilities for
procuring
information.

gence were freely employed both before and during the war; and there is no doubt that the Japanese were very well informed throughout the operations. They also showed themselves adepts at "mystifying and misleading," which the Russians were not. As a result of such conditions, it is not surprising that all the inestimable advantages of good information were on the side of the Japanese.

External
politics.

By a wise alliance with England Japan had secured herself against a possible combination of European Powers, such as had forced her to humble herself in 1895. As regards Asiatic nations, Korea and China alone required consideration. Korea possessed no army or navy, but, although its government was without the power to make its voice heard, foreign governments were represented at Seoul, and it was advisable, as far as possible, to give a semblance of legality to any military occupation of Korean territory. Japan took steps to do so at the opening of the war.

China presented a more complicated problem, and her attitude was a matter of considerable importance. All the great Powers had interests in China, so that friction with them might easily arise. These considerations resulted in a declaration of Chinese neutrality, excepting as regards the territory under Russian influence. Both Japan and Russia showed, throughout the war, that they considered it inadvisable to risk possible complications by any flagrant breach of this neutrality.

It only remains now to sketch the relative strength and resources of Japan and Russia, and the distribution of their forces at the beginning of February 1904, in order to complete this *résumé* of the general conditions under which the war began.

Resources
and strength
of Russia and
Japan.

The area of the Russian Empire is over 8,000,000 square miles; that of Japan about 162,000. The population of Russia is about 130,000,000 against 44,000,000 Japanese. As regards revenue, the comparative proportion is about £210,000,000 to £30,000,000. The peace strength of the Russian army is over 1,000,000; its war strength about 4,500,000 trained men. Japan's active army, with its reserves, numbered just under 600,000 men. Behind this army she had another reserve, consisting of 50,000 partially trained and 250,000 untrained men, and a further reserve of 220,000 partially trained men, of whom

about half were called out in the autumn of 1904. In all, then, her total force was about one-fourth of Russia's; while nearly one-fourth of that force was untrained, another fourth being only partially trained. From these figures it would at first appear that Japan was embarking on an enterprise altogether beyond her strength, and that her victory, notwithstanding such disparity, shows that numbers have not the importance claimed for them on page 43.¹

The *local* conditions under which the war was fought, however, present a very different comparison. The whole of the Japanese army was available against Russia, and it would be operating comparatively near home. Once command of the sea had been secured, Japan could quickly develop her full strength. Her sea communications, so far as they extended, would then be sufficient for the needs of the army. Her land communications would be very short compared to Russia's. Russia could only spare part of her vast army to deal with Japan, and it would require many months, at least, to concentrate even that part 5000 miles from its base. With a single railway line as her sole means of communication, Russia could scarcely hope to concentrate and maintain in Manchuria a larger force than Japan could oppose to her; and during the first months of the war, Japan would be able to dispose of a decided numerical superiority, *provided she could quickly gain command of the sea*. On the sea Japan had decidedly the best of the local situation. Her superiority in harbours, naval bases, and docks has already been mentioned. She possessed an approximately equal force in battleships, and a decided superiority in cruisers and torpedo craft. Moreover, when the war began, part of the Russian fleet was isolated at Vladivostock. In time, no doubt, Russia could bring large naval reinforcements from Europe, but it would entail a voyage of nearly 20,000 miles, and if Japan could quickly dispose of Russia's existing Eastern fleet, she might reasonably hope to be able to deal with these reinforcements on their arrival.

At the beginning of February 1904 Russian reinforcements, naval and military, were already on their way to the East. The exact

Local conditions were at first in favour of Japan.

Distribution of the Russian

¹ Japan, as a result of her experience, is reported to be adding eight new divisions to her army (*vide* 'Journal of the Royal United Service Institution,' January 1907).

forces in February 1904. strength actually in the Far East is open to doubt, but the following figures may be taken as approximately accurate:—

Land forces. \ Field troops—

About Vladivostock	30,000 men and 112 field-guns.
About Port Arthur and Southern Manchuria	30,000 " 52 "
Between Harbin and Mukden	5,000 " 6 "

With various detachments added to the above, the total number of combatant field troops may have amounted to 70,000 men. Besides these there were the fortress troops in Vladivostock and Port Arthur, and railway troops—in all, some 40,000 men—not available for field operations.

Thus Russia had but comparatively small forces immediately available: these were scattered over an immense space; and reinforcements could only dribble in slowly along the railway. If Japan acted quickly, Russia could not prevent her gaining the territory in dispute at the first rush, and could only hope to regain it by subsequent offensive operations.

Sea forces. On the sea, Russia's main fleet was at Port Arthur. Four cruisers and some smaller ships were at Vladivostock. One cruiser and a gunboat at Chemulpho.

Rupture of diplomatic relations by Japan.

These were the general conditions when Japan decided finally on war. Having patiently and thoroughly prepared for the struggle, she began to urge on Russia an agreement as to their respective spheres of influence. Russia showed little disposition to treat these representations with courtesy, not to speak of justice, and commenced to strengthen her forces in Manchuria. Recognising that further delay would be useless, and would give Russia time to prepare, Japan broke off diplomatic relations on 6th February 1904. Russia was apparently surprised by this strong action. She does not seem to have realised how prompt and determined was the adversary with whom she had to deal.

THE JAPANESE PLAN OF CAMPAIGN.

It is easy to be wise after the event. To be successful in war it is necessary to be wise before it. By prompt political action Japan had

secured the power to seize the initiative,—how was she to make the best use of this power?

Command of the sea was, beyond doubt, the first object, and it could only be definitely secured by destroying the hostile fleets. To this the whole naval strength of Japan was at once, most wisely, devoted. But, assuming success on the sea, it was necessary to have plans ready for the next move. What should be the first objective on land? What would be the best line of operations? Must the army rest idle while the naval situation was developing, or could it do something meanwhile? To these questions the Japanese rulers and generals had to find answers.

Command of the sea the first object.

The general principle ruling the answer to the first of these questions is well established. On land or on sea the enemy's fighting forces must be the first objective. When his forces are divided, *that which is most immediately dangerous should, usually, be first dealt with.* In this war the hostile fleets were what Japan had most to fear at first,—a fact which led to a peculiarly complicated strategical problem, in which a Russian fleet became the objective of a Japanese army. This problem will be considered in its proper place, but, meanwhile, it is necessary to note that the possibility of such a problem arising, where land and sea forces are engaged, must be foreseen and prepared for.

An army may be required to help in securing command of the sea.

So far as the Russian army was concerned the general conditions of the problem made it certain that it must assemble on the railway, and that, owing to the difficulties of supply by road, neither Russia nor Japan would be able to employ their main forces at any great distance from the railway. The possible lines of advance for the *main* Japanese army were therefore limited to two—viz., either along the Vladivostock-Harbin line, or along the Port Arthur-Harbin line. In considering which should have been chosen, the student is referred to previous chapters on angular frontiers. Once command of the sea had been gained the Japanese frontier would be the coast of the mainland, enclosing the theatre of war on two sides and almost surrounding Korea.

Possible Japanese lines of advance.

An advance from Vladivostock on Harbin would threaten the communications of any Russian force south of Harbin. An advance along the other line, from the south, would threaten the communications of any force east of Harbin. When we think of threatening communications, however, we must remember that they can never be our "objective."

Our one object must still be to defeat the enemy's army. We only direct our movement on to his communications in order to gain an advantage over his army, either by increasing the chance of defeating it, or by increasing the results to be gained from its defeat, or both.

Comparative
merits of the
two possible
lines of
advance.

It was necessary, then, to consider the respective merits of these two lines of advance from the point of view of the defeat of the Russian army. Taking an advance from Vladivostock first: the harbour there was fortified, and before it could be used as a base the fortifications would have to be captured. This would entail a siege, and the besieging army would have to land on the neighbouring coast. Another army would also be required to land on the coast and push westward to cover the siege. If it were decided to merely mask the fortress, the landing would still have to be on the coast. Now the coast is ice-bound till April; that would entail two months' delay. Even when there is no ice the coast near Vladivostock is almost, if not quite, impracticable for the landing of large forces, and movement from the coast to the railway would have to be, for a considerable distance, over difficult mountains and by bad tracks. Until the fortress fell, all supplies would have to be transported over these mountains. Nor would the difficulties end there. The railway, when reached, would be useless without rolling stock, and how could the rolling stock be brought to it while the Russians held the harbour?

In war determined commanders can overcome almost any natural difficulty *if given time*. But time given to them is also given to the enemy, and it is the most dangerous thing he can be given. The initiative is useless if not turned to prompt account. It would certainly take many months to develop a strong advance from near Vladivostock towards Harbin. During those months the Russian forces would be increasing as rapidly as reinforcements could be pushed along the railway. There could, therefore, be no question of cutting communications, for the Russians would not only have ample time to collect their forces to cover their communications, they would have time enough, in addition, for expeditions down the Liao-Tung peninsula (with the help of the railway) or perhaps into Korea. There were other arguments against this line of advance, of which the strongest was that if it became necessary to undertake a siege of Port Arthur, in order to cap-

ture the Russian fleet, the army engaged in such operations would be completely separated from the main line of advance; and if that main advance were very seriously delayed, as was likely, its pressure on the Russians would not suffice to prevent serious attempts to raise the siege. It is evident that under the conditions an advance from Vladivostock was open to serious strategical objections, and promised no special tactical advantages. If it could have been made rapidly, and in sufficient force, it would have presented quite a different problem.

The other line of advance was decidedly better. It offered a considerable choice of landing-places, either near the railway or connected by passable routes with the railway. Base harbours could be secured without the need of a siege,—neither Dalny nor Niuchuang was fortified, and both were connected with the main railway. When Niuchuang had been secured, supplies could be brought there by sea, and the Liao Ho would become useful as a line of supply. Troops operating along the coast roads in the Liao-Tung peninsula could, apparently, draw supplies from various points on the coast. All the conditions were therefore more in favour of the possibility of rapid movement by this line than by the alternative one. Moreover, an advance by this line—besides covering a siege of Port Arthur should it become necessary to undertake one—would also protect Korea by threatening the communications of any force attempting to invade it. The chances of bringing the Russian army to battle by an advance from the Liao-Tung peninsula were at least as good as by an advance from the Vladivostock side.

Lastly, possible need for eventual retreat had to be considered. In time the Russians might mass large forces and drive the invaders back to their ships. If the Japanese made their advance from the Vladivostock side, the coast near there would be difficult to re-embark from, and might be ice-bound just when re-embarkation became necessary. If the advance were made from the Liao-Tung peninsula, there would be a choice between two lines of retreat from the neighbourhood of Liao-Yang. If Port Arthur had previously been captured, the Kwan-Tung peninsula would be a strong rallying point to fall back on, and would offer an excellent position from which to cover re-embarkation. Korea offered an alternative line of retreat, and it seems probable

Lines of
retreat.

that in pushing on the construction of the railway from Fusan, through Seoul, the Japanese had considered, amongst other things, the possibility of such a necessity arising. Once the difficulties of supply had been overcome by the completion of this railway, the many advantages of Korea as a base require no explanation.

Courses open if complete command of the sea were not gained.

All these arguments are based on the assumption that Japan would gain complete command of the sea. Did she fail to do so, transports could only traverse the Yellow Sea at a risk proportionate to the extent of the failure. A landing in force might then have been altogether impossible, or it might have been possible only on the coast of the Sea of Japan, which could be secured with comparative ease. In the latter case the choice would appear to lie between accepting the disadvantages of an advance from near Vladivostock, or operating through Korea. From the steps taken during the first stage of the war, it seems that Japan would have chosen the latter alternative, but no great force could have moved through Korea before the railway was completed.

Necessity for working out plans of campaign thoroughly beforehand.

The foregoing seem the chief considerations as to the lines of advance open to the Japanese. They have been described at some length in order to give an idea of the nature of such problems. But it must be realised that a brief sketch like this can only give a very vague idea of the care and thoroughness with which every possible contingency was, doubtless, worked out by the Japanese General Staff in the years preceding the war. Napoleon has left on record that his success was in a great degree owing to his having always thought out everything beforehand. Von Moltke worked on the same principle, and his projects for the war with Austria in 1866 are an invaluable illustration of the methods on which such problems should be solved. His dictum that "errors in the original concentration of an army can seldom be remedied in the course of the subsequent operations" is very important to remember; and the only sure way to avoid such errors is to think things out beforehand, as he did.

Possible landing-places.

Having decided on the main line of advance, the next necessity was to decide on suitable landing-places. The western coast of the Liao-Tung peninsula, near which the railway runs, looks strategically attractive on the map. But it is rocky, and as the Japanese, apparently, made no attempt to land there, we must presume that it was unsuitable for the

purpose. Niuchuang, or its neighbourhood, would also appear to offer many advantages. The sea on that coast is, however, very shallow, and the coast was ice-bound in February and March. Moreover, a landing there would have been opposed, as a Russian detachment occupied Niuchuang. Whether for these or for other reasons, the Japanese made no attempt to land at Niuchuang until after the withdrawal of the Russians at the end of July.

There remained to be considered the stretch of coast from Port Arthur to the Yalu. A landing near Port Arthur would evidently be very dangerous before the Russian fleet was rendered quite innocuous, and there was also a mobile Russian land force there which might oppose a landing. On the eastern coast of the Liao-Tung peninsula there were various possible landing-places: the coast road would be available for a subsequent advance to secure the harbour of Dalny; and there were various tracks across the mountains leading to the railway at the other side of the peninsula. From Ta-ku-shan eastward to Chinampo the coast was ice-bound during the first two months of the war, and, moreover, the farther east the main landing was made the farther it would be from the railway.

The answer to the third of the three questions put forward on p. 361 has not yet been considered—viz., Should anything be attempted by the army while the naval situation was developing? That question is suggested by the possibility of throwing a force across the Korean Straits, without waiting until sea conditions made a longer voyage possible. Only a comparatively small force could be employed, owing to difficulties of supply; but it would suffice as a temporary precaution to prevent any Russian attempt to seize the Korean harbours from the land side, and it would ensure to Japan a paramount diplomatic influence with the Korean government. Japan did secure this influence very cleverly. Transports with four Japanese battalions suddenly arrived at Chemulpho, under naval escort, on the 8th February, before hostilities commenced. Two of these remained to secure the harbour, the remaining two proceeded to Seoul, where, on 23rd February, a treaty was signed legalising the passage of Japanese troops through Korea. When these four battalions were despatched from Japan, Russian Cossacks were already “reconnoitring” across the Yalu into Korea. It had been intended to

Possible
action in
anticipation
of gaining
command of
the sea.

reinforce the Japanese battalions *via* Fusan, but the rapid and favourable development of the naval situation made it possible to send the reinforcements by sea to Chemulpho, thus saving a toilsome march, and gaining time.

COURSES OPEN TO THE RUSSIANS.

A defensive attitude was imposed on Russia at the beginning of the war.

The prompt seizure of the initiative by Japan, and the weakness at that time of the local Russian forces, imposed on the latter a defensive attitude at the beginning of the war. There could be no immediate question of an invasion of Japan. Even if the Russian navy gained complete success, the means of transporting an army across the sea were not prepared. A measure of naval success, however,—in fact, anything short of decided failure,—would at least delay a Japanese landing on the mainland, and so give time for Russian reinforcements to arrive.

The first mistake made by the Russians.

We need not pause to consider what Russia should have done before Japan seized the initiative, beyond remarking that her failure to prepare, in time, for the chance of war has afforded one more illustration of the fatal results of such neglect. On the 6th February the rupture of diplomatic relations took Russia by surprise. On 8th February, before she had time to think, her prompt adversary had secured Chemulpho and Seoul. The same night, and next day, several Russian ships were disabled, and the fleet took refuge under the guns of Port Arthur. Any Russian hope of immediate success at sea must have been quenched by these events. At this point the best disposition for the available Russian land forces becomes interesting. There was no longer any doubt that strong reinforcements to both sea and land forces would be necessary, and that, probably, little could be done beyond delaying a decision until they arrived. On the assumption that the fortress troops at Port Arthur and Vladivostock would suffice to protect the fortifications at those places against a *coup-de-main*, and that the special railway guards could secure the important points on the railway against hostile natives and Japanese agents, how should the Russians have disposed the 70,000 field troops then available?

Considerations as to the best disposition for the Russian army after 9th February.

The fortress troops probably could not hold Port Arthur, or Vladivostock, against determined assault in force, and the capture of either

would give the Japanese a valuable foothold on the mainland, and deprive Russia of a naval base. If the field army were concentrated near Port Arthur the capture of Vladivostock would force it to hurry north to oppose an advance from there, or a sudden landing at Niuchuang might cut it off. If the army concentrated near Vladivostock, the Liao-Tung peninsula and Korea would be left absolutely open to the enemy. A central concentration, where such great distances are in question, would not prevent a landing at either point. To divide the available force to guard every point would lead to weakness everywhere. Such is the nature of the problem which an unready nation imposes on its unfortunate general-in-chief.

The Russians took the usual course of dividing to guard Port Arthur, Niuchuang, the Yalu, Vladivostock, Possiet Bay, and other possible landing-places in those neighbourhoods. Such division of force is contrary to sound principle; but what is a general placed in such a predicament to do? It is easy to find fault but very hard to show a remedy, and the student of strategy will find it a valuable exercise to determine what he would have done under such conditions.

The following points are suggested for consideration: Vladivostock and the coasts near it were protected by ice during February and March against anything but a raid. That point might, therefore, for the present have merely been garrisoned sufficiently to ensure its safety against raids, a few Cossacks being left to watch the coasts near it, to give warning of any landing, and to disable the railway if necessary. The remainder of the field army, after providing for the security of the all-important railway, might have been massed at once about Haicheng, with detachments watching Niuchuang, the Yalu, and possible landing-places on the Liao-Tung peninsula. The duty of these detachments would have been to get and keep touch with any enemy landing, to watch all his movements, delay his advance, and so keep the main body fully informed. But they should not risk any decisive action with superior, or even approximately equal, forces. Port Arthur should have been amply provisioned and garrisoned. As a *temporary* base for the fleet its value to Russia was very great. As the most accessible—probably the only possible—base for eventual naval reinforcements from Europe its retention was a vital naval question.

Further action would necessarily depend on what the Japanese might do—but always remembering two vital principles—viz., (1) *That whether the initiative has been gained or lost, the enemy's forces form the only true objective.* (2) *That victory can be won only by striking.* Purely “passive defence,” strategical or tactical, leaves an enemy free to complete his plans, lets his errors go unpunished, and invariably ends in failure. A temporary defensive attitude—a temporary avoidance of a decision—is often sound and wise; *but such an attitude must be assumed only with the object of finding, or rather making, an opportunity to strike.* As strong a force as possible must be held constantly ready, and vigorous offensive blows must be struck whenever opportunity offers, or can be made. Ground must be closely studied, time carefully calculated, and every chance seized to delay the enemy with inferior forces at one point, in order to strike him with superior forces at another. These are the essential principles of what, for want of a better word, is called “defence”; and the principles are the same in strategy and in tactics, on sea as on land. How the Russians might have applied this principle on land, when the Japanese advance at length provided them with an objective, we will presently consider. It is certain that they ought to have sought opportunities to strike at sea also, but the “when,” “where,” and “how” can only be pointed out by expert naval critics.

NARRATIVE OF IMPORTANT EVENTS—8TH FEBRUARY TO END OF MAY 1904.

Events during
February.

8th February.—The Japanese occupied Chemulpho and Seoul, as already described. The same night the Russian fleet, then anchored outside Port Arthur, was surprised by Japanese torpedo boats, and several ships were seriously damaged.

9th February.—The Russian fleet, still outside Port Arthur, was bombarded, and suffered further damages. It then took refuge inside the harbour, where it was protected by the fortifications from further attack. At Chemulpho the Russian cruiser and gunboat were sunk.

10th February.—War was formally declared.

14th February.—The 12th Japanese Division began embarking in Japan for Chemulpho.

15th February.—Part of the 12th Division sailed at noon.

21st February.—The 12th Division completed its disembarkation at Chemulpho. A small Japanese detachment reached Ping-Yang, driving back a few Cossacks.

25th February.—The 12th Division began to arrive at Ping-Yang. The advance to this place proved very difficult, and Japanese energy and resource were taxed to the utmost in bringing up supplies. The coast north of Chemulpho being still ice-bound, assistance by means of water transport was not possible.

So far all had gone well for the Japanese. They had shown great energy, promptitude, and decision; they had increased their naval superiority, both physically and morally, and they had established a firm footing in Korea.

The value of such first successes is always great. At the outset of a war every one's nerves are at a high state of tension, and a favourable beginning does much to establish confidence on the winning side, and to give rise to doubts and anxieties in the ranks of the adversary.

But the situation at the end of February was still full of anxiety for Japan. Though her naval superiority had been increased, it could not be turned to immediate decisive account. To secure absolute command of the sea, it was necessary to destroy the Russian fleet. All that had been attained was to force it to take refuge in a fortified harbour, where it could not be reached; where it could repair damages, and from which it might issue at any inconvenient moment. Even a few torpedo boats, escaping during darkness, might work havoc amongst any transports found within reach.

Situation at
the end of
February.

The Vladivostock fleet also demanded attention. It had cut its way out through the ice, and was at large in the Sea of Japan, where it had sunk a Japanese merchant ship.

Under these conditions no landing in force was yet possible.

As the Russian fleet in Port Arthur refused to come out and fight, and as the most heroic attempts failed to injure it inside the harbour, it was at length determined to endeavour to render it innocuous by blocking the mouth of the harbour, thus making exit impossible. During the next two months the Japanese navy, under Admiral Togo, devoted the utmost energy to this purpose. But it was not until the 1st May that these efforts succeeded, and even then the success was neither complete nor permanent.

Action of the
Japanese
navy after
February.

Thus, until May, the naval situation limited Japanese enterprise on land to what it might be possible to undertake in Korea. During the greater part of March the 12th Division remained near Ping-Yang, isolated indeed, but secured from serious attack by the difficulty of the country in its front, across which the Russians could not carry out any rapid offensive movement in force.

Action of the
1st Japanese
army during
March and
April.

Towards the end of March, as soon as the ice had sufficiently cleared, the 2nd and Guard Divisions landed at Chinampo. These, with the 12th Division, formed the "1st Army" under Kuroki,—strength about 41,000 combatants with 128 guns.

When joined by these reinforcements Kuroki advanced towards the Yalu. Great natural difficulties rendered his movements very slow. The transport of supplies was so difficult that the size of the advanced guard employed to cover the movement had to be dangerously reduced; and the army, small as it was, could scarcely have reached the Yalu at all, had it not been possible to land supplies at various points on the coast comparatively near the line of march.

By the end of April Kuroki was ready to force the passage of the Yalu. He was opposed by a Russian detachment, about 20,000 strong, with 62 guns, whose strength he had accurately estimated.

Battle of
the Yalu.

On 1st May Kuroki defeated this detachment, which retreated with heavy loss towards the Motienling. On 6th May the 1st Army occupied Feng-huang-cheng without further resistance. From there Kuroki stretched his right northward as a precaution against any turning movement. No further advance westward was made for several weeks. Antung now became the supply-base for the 1st Army, its requirements being brought to that point by sea.

2nd Japanese
army lands
and moves on
Port Arthur.

Immediately after the battle of the Yalu the 2nd Japanese army made its appearance. It had been held ready on transports, within reach, for some days, apparently awaiting the results of the third attempt to seal the mouth of Port Arthur harbour, and of Kuroki's attack on the Yalu position. It now proceeded to Pi-tzu-wo, near which place it began landing on 5th-6th May. This army consisted of the 1st, 3rd, and 4th Divisions, under Oku; strength about 45,000 men.¹ Extensive

¹ "The 5th Division (about 15,000 men), which landed during the latter half of May, also came under Oku's command at first, and was used by him to protect his right flank when he moved towards Port Arthur."

mud-flats made the landing difficult and slow, but by the middle of May Oku was moving towards Port Arthur.

About the 19th May a third army began landing at Ta-ku-shan. 3rd Japanese army lands. Its strength was kept very secret, but it is now known to have consisted of the 10th Division—strength some 15,000 men.¹

On 26th May the 2nd Army under Oku defeated an inferior force Battle of Nanshan. holding a very strong position at Nanshan. The Russians fell back to the forts round Port Arthur. This victory isolated Port Arthur, cutting off at least 25,000 field troops who were there. It also gave the Japanese possession of the harbour of Dalny, on the railway. It was several weeks, however, before the harbour could be used, as it had first to be cleared of mines.

By the end of May Japan had thus gained several valuable successes. Situation at the end of May. Korea was secured; Port Arthur isolated; and three armies were established on the mainland. Two battles had been won, and the doubtful question of the value of trained Asiatics against Europeans had been solved altogether in favour of the Japanese, whose credit now stood high throughout the world,—an important consideration in view of the necessity which existed for borrowing money.

But, despite these successes, permanent command of the sea was The Russian fleet still dangerous. not yet secured. The obstructions at the mouth of Port Arthur harbour could be, and were being, removed. The Vladivostock fleet, once forced to retire, had been out again and had sunk a transport. It was only a question of time before large naval reinforcements from Europe might appear on the scenes. The Japanese fleet had recently suffered losses from accidents. Further accidents might occur, and the blockading fleet, constantly at sea in all weathers, must lose in efficiency; while the Russian ships, safe in harbour, continued capable of suddenly emerging should a favourable chance offer.

Besides the continued existence of these dangers on the sea, the The Russian army becoming dangerous. situation on land was by no means free from anxiety. Nearly four months had elapsed since the war began, and during those months the Russian army in Manchuria had been considerably strengthened. By the end of May Russia had at least 90,000 men and some 300 guns

¹ "The 5th Division joined the 10th Division after the battle of Ta-shih-chao (*vide* page 375). These two Divisions then formed the '4th Army' under Nodzu."

in the district immediately south of Mukden. 20,000 to 30,000 more were already east of Lake Baikal and assembling at Harbin. There were 25,000 men still about Vladivostock, and nearly 50,000¹ in Port Arthur. Altogether not far short of 200,000 field troops, in addition to railway guards and fortress troops. These forces were certainly scattered, and would require time to concentrate. But the Japanese armies already on shore only numbered about 135,000, and they, too, were far from concentrated. The Russians had the use of the railway for their concentration, whereas the Japanese had still to provide rolling stock, repair damages, and alter gauge before they could use the railway; and meanwhile their movements would be hampered by the bad roads.

Under these conditions, taking both land and sea into account, it is evident that the problems now to be solved were far from simple. Should Port Arthur be besieged, or merely masked? What action should be taken against the Russian forces assembling south of Mukden?

The problem
of Port
Arthur.

Although Port Arthur was of political importance, it can scarcely be disputed that *had it not contained a Russian fleet* the Japanese should merely have masked it and pushed on against the hostile field armies before these could grow stronger. When these armies had been beaten, Port Arthur could be captured if it did not surrender; meanwhile its garrison could do nothing. But the harbour did contain a Russian fleet, and that fleet constituted a possible striking force which might prove even more dangerous than the Russian army. Moreover, if Russian naval reinforcements arrived before Port Arthur fell, the Japanese fleet, exhausted by a long and harassing blockade, would be in a most perilous situation.

It was evident that great advantages would result from the capture of Port Arthur. The Japanese fleet would be set free to prepare to meet the expected Russian reinforcements (known as the "Baltic Fleet"), and would have no other responsibilities to consider; while the Japanese army, with its sea communications secure, could devote undivided attention to the hostile land forces.

The Japanese, accordingly, decided to press the siege of Port Arthur at once. They evidently had great hope of being able to capture the

¹ 30,000 of these were field troops, the remainder fortress troops.

fortress in a few weeks, and were fully prepared to pay whatever price determined assault might cost. The hope proved vain. Port Arthur resisted for seven months. An obvious lesson to be learnt from this is that permanent fortifications, adequately defended, cannot be rushed. Another lesson, perhaps less obvious, is that it is not safe to count on a determined adversary not trying to rush even the strongest positions, regardless of loss, when the situation demands their capture, and time presses.

Having decided to besiege Port Arthur, the next problem was what action to take against the Russian army assembling south of Mukden. It was already assuming formidable proportions, and the more time it was given the larger it would grow.

Action necessary against the Russian army assembling at Liao-Yang.

In considering this problem, the first difficulty we find is that the Japanese armies were separated. Kuroki was about 90 miles from Liao-Yang by the Motienling road. Oku was nearly 200 miles from Liao-Yang by the road running alongside the railway. Liao-Yang, the point where these routes meet, was occupied by the main Russian army. If the Japanese advanced by both routes, separated by the mountains, the Russians would have all the advantages described in the comments at the end of Chapter IV., Part IV.

How were the Japanese to overcome the dangers of this situation? They could not reinforce Kuroki and adopt the Motienling road as the main line of advance, because the supply of a large army on that route was impossible.

If they made their main advance along the railway, what was to be done with Kuroki and the 10th Division? To bring them round to the railway by sea would take time and use up the transports required for reinforcements. To move them round to the railway by land, even if possible, would require a long time, and every week the Russians grew stronger. Moreover, if Kuroki were brought round, Korea would be uncovered, at any rate until the pressure of the Japanese advance along the railway was sufficiently developed to protect it indirectly. The problem was most complex, and illustrates well the difficulty of making any subsequent alteration in the original concentration of an army. The Japanese decided to accept the dangers of advancing by both lines to form a junction at Liao-Yang. The 10th Division crossing the mountains towards Haicheng was to form a link between the two columns.

NARRATIVE OF EVENTS AFTER THE BATTLE OF NANSHAN.

Siege of
Port Arthur.

After the battle of Nanshan (26th May) the 1st Division, reinforced from Japan by the 11th Division, and later by others, formed the "3rd Army," which was charged with the siege of Port Arthur, under command of Nogi. The 3rd, 4th, and 5th Divisions under Oku continued to be known as the "2nd Army," which was reinforced later by the 6th Division.

The siege of Port Arthur was soon pressed with the utmost vigour by Nogi, and there we may leave him and his army for a time.

Russian
attempt to
relieve Port
Arthur.

When the Russians, after "Nanshan," realised that Port Arthur was in danger, immediate steps were taken to succour it. Stackelberg, with about 27,000 men and 96 guns, was sent from Liao-Yang to attempt the relief of the fortress, or, at any rate, to weaken the pressure on it.

Oku moves
north along
the railway
to cover
the siege.
Battle of
Telissu.

Oku moved north along the railway to oppose this detachment, which he met and completely defeated at Telissu on the 15th June. The Russians retired northwards, and Oku continued his advance slowly to Kaiping, which he occupied on the 9th July, without serious resistance.

Kuroki
seizes the
Motienling.

Meanwhile Kuroki, after halting for some time at Feng-huang-cheng, had resumed his advance and seized the Motienling pass on the 26th-27th June. His right was unable to come up into line at first, but eventually it was extended several miles to the north of the Motienling.

The 10th
Division ad-
vances sim-
ultaneously.
The Japanese
halt.

The 10th Division advanced simultaneously, and, assisted by a detachment from Kuroki's left, drove a Russian force from the Fen-shui-ling,¹ after a sharp fight, on the 27th June.

Russian
attack on the
Motienling.

After these events there was a pause in the Japanese advance, and during this pause the Russians showed some signs of activity. On 4th July Kuroki defeated a feeble attack on the Motienling, made by two Russian battalions, and, presumably, intended as a reconnaissance. On the 17th July two Russian Divisions attacked the Motienling,

¹ This pass (Map No. 18) is some 30 miles (as the crow flies) south-east of Haicheng, on the road from Taku-shan. On some maps it is named the "Ta-ling." It leads over the main range of mountains running down the peninsula. Its capture, therefore, placed the 10th Division in a position to threaten the communications of the force opposing Oku's advance.

but were repulsed after fourteen hours' fighting. Two days later the troops forming Kuroki's extreme right, 25 miles north of the Motienling, drove the Russians in their front back towards Anping.

On the 23rd July Oku resumed his advance. He now had four divisions, having been joined by the 6th Division from Japan. These reinforcements brought his strength up to about 56,000 men (including 1500 cavalry) and 250 guns. In his front the Russians, in strength about 35,000 men with 112 guns, were holding a strong position at Ta-shih-chao. Their numbers are said to have been considerably overestimated by the Japanese.

On 24th July Oku attacked this position. The Russians, whose orders were to act as a delaying force, defended the position until night and then retired to Haicheng. That they retired so far was probably due to the 10th Division, which was threatening a move from Fen-shui-ling towards Haicheng.

The victory at Ta-shih-chao gave the Japanese possession of Niuchuang, a valuable supply-base. After the battle the 5th Division joined the 10th Division, the two then forming the "4th Army" under Nodzu.

The Japanese were now nearing their point of junction. Nodzu and Oku were already in touch. It was evident that, if a junction between them and Kuroki were to be prevented, the Russians had no time to lose. Kuropatkin, the Russian Commander-in-Chief, at this period, appears to have intended to attack Kuroki, detaining Oku and Nodzu meanwhile. But the delaying army had already retired to Haicheng, and the Russian preparations for attack were slow. Kuroki got information of the impending blow, and by suddenly assuming the offensive he completely upset Kuropatkin's plans. On the 30th and 31st July Kuroki's army attacked at various points along its very extended front. The Russians were driven back over the Lan Ho, and their intended offensive was abandoned.

On the 3rd August Oku occupied Haicheng, whence the Russians retired. Nodzu moved in touch with Oku east of the railway.

The Japanese now halted for three weeks, Oku and Nodzu being still some 25 miles from the main Russian position in front of Liao-Yang,

Oku advances from Kaiping.

Battle of Ta-shih-chao.

Japanese occupy Niuchuang.

Russians prepare to take offensive,

but Kuroki forestalls them.

Oku occupies Haicheng.

The Japanese halt for three weeks.

Kuroki 15-20 miles from it, with his right flank stretching to the Taitse Ho, where it was threatened by a Russian detachment at Pen-hsi-hu. The long halt made by the Japanese at this juncture seems very dangerous and is difficult to justify. A possible explanation is that heavy rain just then rendered the roads almost impassable. Another possible explanation is that the Japanese hoped Port Arthur would fall almost immediately, thus releasing the besieging army to join in an attack at Liao-Yang. As a matter of fact, on the 7th, 8th, and 9th of August—again from the 13th to the 15th August, and yet again from the 19th to the 24th August—Nogi's army made desperate efforts to capture Port Arthur; but these efforts failed, and on the 25th August, immediately after the last failure, the advance on Liao-Yang was resumed. Kuroki was obliged to fight his way forward against a strong, but passive, resistance. Oku and Nodzu were not seriously opposed.

Japanese
advance
resumed.

By the 28th August all three armies were in touch with each other along the front of the main Russian position covering Liao-Yang. The position was very strongly intrenched, and the slowness of the Japanese advance had given Kuropatkin time to concentrate there a force outnumbering the combined Japanese armies by some 20,000 men. The Japanese, however, attacked and won a battle which lasted from the 30th August to the 3rd September. The Russians retired towards Mukden.

Battle of
Liao-Yang.

Indecisive
results of
Liao-Yang.

Although the Russians retired from Liao-Yang, they can scarcely be described as having been defeated there. The retreat was made by order of their Commander, and it is far from certain that all chance of victory had vanished when he decided to issue that order. The Japanese were so exhausted by their great exertions in the battle, that they were quite unable to turn the retreat into a rout, and the Russians moved into a fresh position, lying across the railway, about half-way between Liao-Yang and Mukden. This position they strongly intrenched, and along the front of it the Japanese established themselves, and also proceeded to intrench strongly.

Both armies
take up fresh
positions and
intrench.

The new
situation
thus created.

In these positions both armies received reinforcements; but no further operations beyond outpost work were attempted for some time. Each army was now directly covering its line of communications, its eastern flank on the mountains, its western flank watching as far as the boundary

of neutral territory. Both Russians and Japanese were now practically tied to the railway. Neither was willing to risk possible political complications by violating the neutral frontier; and a turning movement on the other flank, through the mountains, was also open to serious objections. A small force making such a movement would be liable to defeat while isolated; a large force, if it could be supplied at all, would only be able to move so slowly that while it was entangled in the mountains the remainder of the army, on the railway, might be overwhelmed. The Japanese, numerically rather weaker than their opponents, would, under these conditions, scarcely have been justified in attacking without urgent strategical necessity; and that necessity no longer existed. They had now united their armies, and they were effectively covering Korea and the siege of Port Arthur. They could afford to wait for a time, which could be usefully employed in improving their communications with a view to bringing up reinforcements when Port Arthur fell. Meanwhile, although Kuropatkin was no doubt also bringing up reinforcements, they could arrive but slowly.

The Japanese had no adequate inducement to attack.

The situation, then, after Liao-Yang did not call for what would have been a risky tactical offensive on the part of the Japanese, who no doubt felt that if it should please the enemy to attack, they might hope, judging by previous experience, to be able to defeat him with more ease and far less loss than by attacking themselves.

Kuropatkin, on the other hand, had every temptation to attack. Both the Russian army and the Russian nation were disturbed by repeated failures, and his own reputation had been shaken. The Baltic fleet was on its way to the East, and it was urgently necessary to relieve Port Arthur as soon as possible, both for the safety of the fleet already there and to secure the harbour as a base for the fleet which was coming. The Russian army south of Mukden had a numerical superiority at the moment, and if Kuropatkin could not win under the existing conditions, he could scarcely expect to do so later, when the fall of Port Arthur should have released the Japanese army there for action against him.

Kuropatkin had strong inducements to attack.

Accordingly, Kuropatkin took the offensive. He was unwise enough to publish beforehand his intention of doing so. His attack was badly combined, and in a battle, known as the "Battle of the Shaho," lasting

Battle of Shaho.

from the 9th to the 18th October, the Russians were repulsed with a loss of 45,000 men, the Japanese losing only 16,000.

The Japanese were not strong enough to turn their victory to much account. After the battle, the Russians again took up a fortified position almost coinciding with the previous one. The Japanese fortified themselves facing them. And so both armies remained until January 1905. The siege of Port Arthur was meanwhile pressed, and at length, on 2nd January 1905, the fortress capitulated.

Fall of Port
Arthur.

Battle of
Heikoutai.

Three weeks later the Russians made another effort to gain a victory before the besieging army could arrive on the scene. In the battle of Heikoutai, lasting from the 25th to the 29th of January, under very severe weather conditions, the extreme Japanese left was vigorously attacked. Practically no effort was made to engage them elsewhere, and they were therefore able to hurry reinforcements to the threatened point and to beat off the attack.

Japanese
assume the
offensive.

Battle of
Mukden.

Shortly after this, the Port Arthur troops having come up, the Japanese prepared to resume the offensive. On the 19th February they commenced operations with an advance from their right, and in a battle lasting from then until the 10th of March,—the “Battle of Mukden,”—Kuropatkin was again out-generalled and driven north with enormous loss. This was the last great land battle of the war.

Defeat of the
Baltic fleet.

Nearly five months after the fall of Port Arthur the Baltic fleet at length arrived. It was utterly defeated in the Korean Straits, on May 27-28, 1905. Peace eventually followed in August 1905, Japan gaining the objects she had fought for.

COMMENTS.

The period
before the
battle of
Liao-Yang.
Strategical
results of the
decision to
besiege Port
Arthur.

Probably the most complicated strategical problems which the Japanese had to solve during the war were those existing at the end of May 1904, when the questions of the siege of Port Arthur and the conduct of the advance to Liao-Yang had to be decided.

As regards the former—the siege of Port Arthur—certain points have been discussed on previous pages, but there were other important considerations which have not yet been touched on.

If it had been decided to merely mask the fortress, in order to use every available man against Kuropatkin, what would have been the probable result? It was known that Kuropatkin favoured a retirement—even to Harbin—before risking a decisive battle, in order to gain time to concentrate superior numbers. He had no vital point, south of Harbin, to cover, and *with Port Arthur merely masked, and in no danger*, there would be nothing to tempt him to fight before it suited him to do so. The Japanese might, therefore, have been obliged to follow him for months,—lengthening their communications,—increasing their supply difficulties,—constantly losing men against rear-guard positions,—and gaining no definite decision. All that time the Japanese navy would be carrying on an exhausting blockade; and even if the Russian fleet at Port Arthur failed to effect anything by itself during that time, the approach of the Baltic fleet would eventually bring about a serious situation for the Japanese fleet. If, when that danger arose, Port Arthur was still holding out, and Kuropatkin was still unbeaten—though by then probably strong enough to contemplate a battle—what could the Japanese have done? If they hurried back part of their army to besiege Port Arthur they would be exposing the remainder to defeat by Kuropatkin; and it would be extremely doubtful whether Port Arthur could then be captured before the Baltic fleet arrived. Even if it were, the Japanese fleet would have no time to make preparations to meet the Baltic fleet, though much preparation would be desirable after the long and exhausting blockade duties. The dangers of such a situation are very evident.

The decision to besiege Port Arthur immediately after the battle of Nanshan had, therefore, a far-reaching effect on the general strategy of the campaign. *It was a certain means of preventing an indefinite retirement of the main Russian army. It was a probable means (as it actually proved) of drawing Kuropatkin into premature action.* Thus it offers an illustration of a strategical lever by which the enemy's general, or his government, may be moved to unwise action.

The wisdom of the decision to besiege Port Arthur has been questioned by some critics, chiefly on the assumption that it resulted in the Japanese bringing inferior numbers against the Russians at Liao-Yang. But was the siege of Port Arthur really responsible for this numerical inferiority?

Its far-reaching effects.

The Japanese advance to Liao-Yang.

The numbers
available.

Had not the Japanese sufficient numbers available, in the summer of 1904, to besiege Port Arthur, and still outnumber Kuropatkin? Judging by the numbers employed at a later date, it would seem that they could have devoted 100,000 men to the capture of Port Arthur, and still have had at least 200,000 available for the advance to Liao-Yang. Yet the combined armies of Oku, Nodzu, and Kuroki do not appear to have numbered more than 130,000 in September 1904, and Nogi's army at Port Arthur does not account for the remainder. How are we to account for this? It is impossible to imagine that the Japanese would willingly have left troops idle in Japan during what was, undoubtedly, such a serious crisis. We are forced to conclude either that—like Great Britain during the South African War—Japan had not originally contemplated the need for such large numbers as she eventually had to employ, and was not prepared to put them into the field at this period; or that it was impossible, in the summer of 1904, to push on supplies for larger forces than were actually employed; or that transports were not immediately available in sufficient numbers to convey the troops across the sea.

The first and third of these suppositions seem very unlikely. If true, they would indicate a serious miscalculation on the part of the Japanese.

If the second supposition be the correct one, it at once disposes of any doubts as to the wisdom of besieging Port Arthur, since if all the troops available could not be sent north, it was more reasonable to use them in besieging Port Arthur than to leave them idle.

From our present insufficient knowledge it can only be said that it seems to lie with the Japanese strategists to explain why the very dangerous advance to Liao-Yang was undertaken with such small forces.

Slowness of
the advance
to Liao-Yang.

The slowness of the advance also requires explanation. Oku, who was farthest off, had less than 200 miles to march from Nanshan to Liao-Yang, and his force was small. Yet he took nearly three months to cover the distance. The Russian resistance was certainly not great enough to account for this delay. The roads, no doubt, were bad, and the railway was not available for some time. But could nothing have been done to expedite the march by landing supplies on the coast? The average rate of Oku's movement works out at little over two miles a-day, that of Kuroki and the 10th Division at about one mile a-day; and this at a time when rapidity was, apparently, urgently desirable. If the three

Japanese armies could have closed on Liao-Yang in the time that would ordinarily suffice for a march of under 200 miles—say 15 to 20 days—there would have been far less danger in the situation than actually arose.

Whatever may have been the cause of the delay, it undoubtedly led to a situation of grave danger for the Japanese. Until the end of June the danger was not serious. The Russians had not yet concentrated their forces, and they were short of transport. They must have been in considerable doubt as to what strength Oku might be able to develop, and the Japanese were still some distance off on both lines of advance. If we study these factors in the situation it becomes evident that, in June, there was no good opening for a Russian offensive. Whichever army they tried to strike at they would have to furnish a detaining force to oppose the advance of the other two. Thus, to overwhelm Oku, probably at least 70,000 to 100,000 men would be required, so far as the Russians could tell. At the end of June Oku was still over 80 miles from Liao-Yang, and it would have taken the Russians several days to concentrate south of Kaiping a sufficient force to defeat him, even though they had the railway to assist the movement. To make sure of holding Kuroki back during this lengthy operation, probably quite 30,000 to 40,000 men would be necessary. The 10th Division was so placed that it could threaten the left flank of any movement towards Oku and the right flank of the force opposing Kuroki; therefore it, too, would absorb a considerable Russian force. Niuchuang would also require watching. It is sufficiently evident that Kuropatkin was still too weak and too immobile to cope with this situation. To direct a blow over the Motienling against Kuroki, while detaining Oku and the 10th Division, would demand equally large numbers, and be still more difficult, since it would entail the conveyance of supplies and ammunition across the mountains for a force of at least 50,000 to 60,000 men, which would be the least that could be expected to defeat Kuroki. If the Japanese found it so difficult to transport supplies for Kuroki's army over the mountains, the Russians, with a far inferior transport organisation, could certainly not have supplied a superior force.

Dangers of
the advance.

The relative timing of the advance of the three Japanese armies at this stage is instructive. At the end of June, while Oku was still south of Kaiping, the 10th Division and Kuroki—who had until then been kept back out of reach—suddenly seized the Fen-shui-ling and Motienling

Timing of
the advance.

passes. From there Kuroki threatened the communications of any force operating against Oku, while the 10th Division protected Kuroki's left flank, and was also well placed to co-operate with Oku in case of need. As already mentioned, there was a pause for some days after these successes, ascribed to the difficulty of bringing up supplies. Then Oku occupied Kaiping, whence he could threaten the communications of any force operating against Kuroki. Looking at these movements from Kuropatkin's side, it will be seen how little opening they gave for a Russian offensive at that time.

From then onward, however, the situation was critical. Before proceeding further the student would do well to read again the comments at the end of Chapters I. to IV., Part IV., and to consider this situation carefully in the light of the principles discussed in those comments.

At the beginning of July 1904 Kuropatkin was, apparently, well placed to act offensively against the Japanese armies in turn. But if he allowed them to advance much further they might combine their blows against him,—in the manner described at the end of Chapter V., Part IV.,—as Blucher and Wellington combined at Waterloo, and as the Prussian armies did at Königgrätz.

The Russians were being reinforced daily, and if the Japanese hoped to be able to advance to form a junction of their three armies, and to strike a combined blow, there were many arguments in favour of doing so at once before their opponents grew stronger.

Yet at this crisis the Japanese halted, and,—remembering that the danger of such a halt must have been quite as clear to them as it can be to their critics,—it is difficult to understand why they did so.

A possible explanation is that the difficulty of bringing up food and ammunition was so great that the armies were compelled to halt for want of them. If this be true, it is worth noting that operations on "exterior lines" may be especially dangerous when there is a possibility of serious delay being caused by bad roads at a most critical period, for even if the enemy is also hampered by bad roads he gains time which may be most valuable to him. But it still remains to be proved that supply difficulties constitute the true and only explanation of the Japanese delay, although they were certainly responsible for a great deal of it.

If the Japanese were seriously short of ammunition at the end of June,

their position was even more dangerous than has been already suggested. If they were not short of ammunition, only a few days' food was wanted to take them as far as Liao-Yang, and the supplies for all three armies might then, apparently, have been brought up from Niuchuang comparatively easily, even without counting on the possible capture of the great quantities of stores which the Russians had collected at Liao-Yang.

Another explanation which has been suggested¹ is that the Japanese hoped to capture Port Arthur at any moment, and were waiting for it to fall in order to have the assistance of Nogi's army against Kuropatkin. In support of this view may be quoted the fact that, while the armies of Oku, Nodzu, and Kuroki were halted, Nogi delivered a series of desperate assaults on Port Arthur, and it was immediately after these assaults had failed that the advance on Liao-Yang was resumed, as if in despair of Nogi's expected help.

If this be the true explanation of the halt, it is probable that the Japanese had hoped, with the assistance of Nogi, to completely crush Kuropatkin at Liao-Yang. It seems doubtful whether this hope would have been justified, even if Port Arthur had fallen in July or August. For reasons already explained, Kuropatkin would probably have declined battle at Liao-Yang under the conditions, and the first great battle of the war might have taken place, perhaps months later, farther north. This plan, therefore, was open to two serious objections: firstly, it was probable that Kuropatkin would evade the intended blow; secondly, as events proved, the whole plan was based on a miscalculation, since Port Arthur held out until January 1905.

It may be that the Japanese were not unwilling to incur the risk of a Russian attack during July, hoping thus to gain a victory at least cost to themselves. But the Japanese position at that time, with their armies separated, cannot be considered a favourable opportunity for awaiting attack.

Whatever the cause of the delay may have been, the result of it was to enable Kuropatkin to concentrate superior numbers at Liao-Yang, and the Japanese at length felt compelled to attempt to effect a junction in the face of these superior numbers. The attempt succeeded, but its success should not blind us to the facts that the Japanese were in a

¹ *Vide* 'Port Arthur,' by Ellis Ashmead-Bartlett, Chapter vii.

perilous position for some time before the battle of Liao-Yang, and that they failed to bring superior numbers to the battlefield. It is clear now, and apparently there was little room for doubt at the time, that the Japanese should have pushed on to Liao-Yang without a halt if they could possibly have done so, and it has still to be proved that they could not. If it were not possible for them to do so, we may reasonably ask whether some less dangerous plan of campaign should not have been adopted originally. Or whether, when it became evident that Port Arthur could not be captured as quickly as had been hoped, the Japanese should not have relaxed their efforts there *temporarily* and drawn a division or two from Nogi's army to Oku's assistance.

The latter step might, apparently, have been taken. Although even temporary delay in pressing the siege might have shaken confidence in the Japanese ability to capture the fortress, it would have been less dangerous to risk that than to risk defeat at Liao-Yang.

To discuss the question of adopting a different plan of campaign would necessitate a fresh review of the whole situation from the beginning, and would swell the dimensions of this already lengthy chapter beyond all reason. Nor does it seem necessary to consider any other plan of campaign until we are convinced that the serious dangers incurred by the Japanese could not have been avoided by hastening the advance on Liao-Yang, and, if necessary, supporting it by a division drawn temporarily from Nogi's besieging army.

Main causes
of Japanese
success.

Whether the arguments which have been put forward in these comments are right or wrong,—whether the plan of campaign was the best possible or not,—there can be no doubt on one point, and that is that the Japanese owed their final extrication from a very difficult situation in July and August 1904 to the qualities of energy, endurance, and resolution which all ranks—from General-in-chief to private—displayed in such a remarkable degree, and in which they were supported by the government and the people of Japan. It is in such qualities and in such support that the most certain road to victory lies. Without these qualities the best plans will fail. With them even the worst may succeed. The most valuable lessons to be learnt from the Japanese success do not differ from the lessons taught by former wars. Comparing it, for example, with the methods by which Prussia rose to power, in 1866 and 1870, we find the

same clear grasp beforehand of the objects to be aimed at, the same timely and thorough preparation, and the same vigour and perseverance in execution.

And if Japan owed her success chiefly to these causes, it is equally certain that the Russian defeat is accounted for far more by failure in these very respects than by any strategical mistakes. Mistakes were no doubt made, but, so far as the strategy of the land campaign goes, Kuropatkin brought superior numbers to the field at Liao-Yang, and he had approximately equal numbers at the Shaho, Heikoutai, and Mukden. He was not taken at a serious strategical disadvantage in any of the four great battles of the war, and his failure cannot be charged chiefly to strategical errors in his main plan of campaign.

Causes of
Russian
failure.

The battle on the Yalu was, of course, unnecessary. Strategy rules "when, where, and with what forces a battle should be delivered," and all that it required at that time was that Kuroki should be harassed and delayed, and that constant touch should be kept with him to ascertain his strength and movements. There was no strategical object to justify standing to fight him on the Yalu with inferior forces. The battle of Telissu was a similar blunder; the attempt to relieve Port Arthur at that time was premature, and no adequate force was yet available for it. Ta-shih-chao proved a useless fight, although it might have served its purpose if combined with a *simultaneous* attack on Kuroki and with proper precautions against the 10th Division.

Absence of
strategical
justification
for some of
the earlier
battles.

In July and August, while the Japanese were halted, the wisest course for Kuropatkin was probably to continue concentrating men as fast as he could, meanwhile holding himself ready to use his interior lines when the enemy began to advance again. This statement is made on the assumption that he could depend on Port Arthur to resist all assaults meanwhile, and that he could satisfy himself that Japanese troops were not being drawn from there for action against him. While this was so, delay was in his favour, as Russian reinforcements were arriving daily. When, however, the Japanese resumed their advance, Kuropatkin should have seized the opportunity to overwhelm their separated armies in the manner described in Part IV. He certainly failed to make the most of his opportunities immediately before the battle of Liao-Yang, as well as in that battle. If his own explanations,

Best course
for Kuro-
patkin in
the summer
of 1904.

now being published, are to be accepted, the fault lay not so much with him as with those under him. Yet it must be confessed that under Skoboleff the Russian army showed itself capable of manoeuvring and attacking effectively.

Effect of the
early Russian
defeats.

The Russian defeats at the Yalu, Telissu, Ta-shih-chao, Fen-shui-ling, the Motienling (17th July), and in the battles against Kuroki at the end of July, even if they did not seriously lower the moral of the Russian soldiers, must have shaken Kuropatkin's confidence in his army, and, perhaps, the confidence of his army in him, and must have greatly raised the Japanese belief in themselves. But for this succession of Russian defeats we may doubt whether the Japanese could have carried through, or would have attempted, their final desperate advance to Liao-Yang. Some, at least, of these fights were strategically unnecessary from the Russian point of view. Some failed owing to bad tactical handling.

Strategical
considera-
tions as to
the defence of
Port Arthur.

Some critics consider that the defence of Port Arthur exercised a harmful influence on the Russians. They point out that the fortress absorbed a field force which would have been of more use in the field; that its danger restricted Kuropatkin's freedom of action and led to his sending a detachment to defeat at Telissu; and that, but for having a refuge in Port Arthur, the Russian fleet would have been compelled to go out and fight, and, even if sent to the bottom, it would have crippled the Japanese ships sufficiently to enable the Baltic fleet to eventually defeat them.

The political and naval importance of Port Arthur was, probably, far too great for the Russian Government to consent to its evacuation, even if Kuropatkin had desired it. But, independently of that, none of the arguments advanced will, apparently, bear a close examination.

Port Arthur detained a Japanese army at least three times the size of the field force in its garrison for seven months, during which the Japanese, minus the besieging force, were obliged to fight three great battles against Kuropatkin. The capture of Port Arthur is said to have cost the Japanese over 90,000 men killed, wounded, or "died of disease." It only cost the Russians 30,000 field troops. These facts amply justify the detachment from Kuropatkin's army of the force required to hold the fortress. In fact, the undoubted chance of

victory which the Russians had in each of the first three great battles they owed chiefly to the defence of Port Arthur.

The lesson to be learned from "Telissu" is not that Port Arthur should have been evacuated, but that its defence should have been so carefully provided for that there would have been no temptation to make premature attempts to relieve it. "Telissu" cannot be charged to the defence of Port Arthur, but to the mistaken judgment of whoever was responsible for sending Stackelberg prematurely, and with an insufficient force, to attempt its relief.

Finally, it is by no means certain that if the Russian fleet had acted as suggested, the Baltic fleet would have benefited. The Japanese fleet would have had a long time available before the Baltic fleet arrived to repair damages sustained in the battle; and it might not have suffered much more in a battle than it did in the blockade. But, however this may be, it is surely not a sound theory that fleets must be forced to fight by depriving them of a base. It would seem simpler and more effective to place in command admirals who are willing to fight when it is wise to do so, and to give them crews who are equally willing to do their duty.

In short, it seems that the plans of campaign on each side were based on sufficiently sound arguments, but that the Russians failed utterly in the execution of their plans, while any errors the Japanese may have made were redeemed by the splendid moral qualities they displayed. And this conclusion is quite in accordance with the general teaching of military history. Failure results far more often from faulty execution of a plan of campaign than from want of perfection in the plan itself. The first amongst all causes of victory, says Clausewitz, is to pursue a great object with energy and perseverance. The Japanese acted on this principle—the Russians did not. Summary of conclusions.

Although the greatest strategical interest of the war lies in the period ending with the battle of Liao-Yang, the events subsequent to that are not devoid of strategical instruction. The situation from September 1904 to the end of the war illustrates conditions under which strategical manœuvres may become practically impossible, thus reducing the opposing armies to a state of immobility, and making results chiefly dependent on straightforward fighting. In Manchuria many causes contributed to The period after Liao-Yang.

this state of affairs. The impossibility of supplying large forces at a great distance from the railway; the nature of the theatre of war, tending to compress the area of operations into the space between the mountains and the neutral frontier; the strength of the fortifications, which enabled both armies to extend their fronts practically right across this space; the very severe weather; the approximate equality of the forces;—these were the main causes which brought about the peculiar and unusual situation in which two great armies faced one another, at close quarters, for several months, during which neither was able to bring about a definite decision.

Under such conditions the initiative in attack is a very doubtful advantage, and, as has already been pointed out (p. 377), the strategical situation forced the initiative on the Russians, with the result that they were twice repulsed with heavy loss—at the Shaho and at Heikoutai.

Combination
of strategical
offensive with
tactical
defensive.

Von Moltke was of opinion that the best results are obtainable by combining strategical offensive with tactical defensive,—meaning that if an enemy can be manoeuvred into a situation from which he can only escape by attacking at a disadvantage, he can then be defeated with a minimum of loss to his opponent by leaving the initiative in attack to him and then turning on him, at a favourable moment, with a decisive counter-attack. The theory, doubtless, is correct, but its practical application is extraordinarily difficult. It is only the greatest generals who are capable of recognising the conditions under which such a course would be advantageous, and of turning them to account. The strategical offensive aims at forcing the enemy to fight at a disadvantage. It must, therefore, usually culminate in tactical offensive, since if the enemy be placed at a disadvantage he will naturally desire to avoid a decisive battle until he has manoeuvred himself into a more favourable situation. To prevent his doing this, it is generally necessary to attack him at once, and to push the attack vigorously, so that he may have no time to extricate himself or to bring up reinforcements. It is only when the enemy has been forced into a situation from which he cannot extricate himself without a battle, and in which he cannot possibly gain anything by delay, that it can be permissible to change, temporarily, from offensive to defensive, and leave it to him to commence

the attack, and then, of course, only with a view to a decisive counter-offensive at the first favourable opportunity.

Although von Moltke has stated that he never succeeded in applying his own theory, he seems to have, at least, gone very near doing so at Sedan. The Japanese appear to have applied the theory successfully at the Shaho and Heikoutai, and with good results,—at any rate at the Shaho, where they only lost 16,000 men against a Russian loss of 45,000.

Not the least important, or least difficult, part of strategical science lies in deciding whether to fight or to manœuvre under any given conditions, and whether to seize the initiative in a battle, or to leave it to the enemy. Every tactical victory is of use, but serious tactical risks should not be undertaken without some adequate strategical object. Had the Russians remembered this at the Yalu, Telissu, and some of the other early battles, they would have avoided the piecemeal defeats which probably affected their subsequent chance of success at Liao-Yang very seriously. At the Shaho and Heikoutai, on the contrary, there were strong strategical reasons in favour of a Russian offensive, and their tactics in those battles seem more open to criticism than their strategy.

Strategy rules when to fight and when to manœuvre.

The object aimed at in what has been said here on this subject is to draw the student's attention to certain strategical considerations which must influence a commander in deciding whether he should attack at once, or whether it is permissible to await the enemy's attack if more favourable tactical conditions can thereby be obtained,—but always with a view to eventual, decisive counter-attack.

Another feature to notice about this period is the long duration of the battles. This is usually put down to tactical causes, and the matter is discussed from that point of view in a subsequent chapter. But it may be noted here that the duration of battles is also much influenced by strategical considerations. So far as *strategy* was concerned, it mattered little to either side whether the battles of the Shaho, Heikoutai, and Mukden lasted for one day or for several: there could be no immediate change in the strategical situation. This is a condition of affairs which seldom exists. Usually if the general who takes the offensive cannot overcome the adversary quickly, he will lose his chance of doing so at all, owing to a change in the strategical situation. Thus when Napoleon

Influence of strategy on the duration of battles.

attacked Blucher on the 16th June 1815 at Ligny, one Prussian corps was absent from the field, and Wellington's army was not yet concentrated. Next day the absent Prussian corps would have arrived and Wellington would probably have been able to send assistance to Blucher. Under such circumstances there is no time for slow and cautious tactics, and attacks must be, and will be, vigorously pressed, regardless of loss. Similar conditions are equally likely to occur in modern war, and it is not safe to jump to the conclusion that because some battles lasted for weeks under the exceptional conditions obtaining in Manchuria, therefore all great battles in future will be similarly prolonged. Strategy will usually demand more rapid results, and the demand will lead to more vigorous methods,—resembling the desperate assaults on Port Arthur, rather than the slower and more patient system of attack adopted in the great battles against Kuropatkin. The possibility of such desperate assaults must be provided for in all schemes of defence.

CHAPTER II.

DETACHMENTS.

“THE operations of the detachments an army may send out have so important a bearing on the success of a campaign that the duty of determining their strength and the proper occasions for them is one of the greatest and most delicate responsibilities imposed upon a commander. If nothing is more useful in war than a strong detachment opportunely sent out and having a good *ensemble* of operations with the main body, it is equally certain that no expedient is more dangerous when inconsiderately adopted. . . . It is undoubtedly much safer and more agreeable for an army to be kept in a single mass; but it is a thing at times impossible or incompatible with gaining a complete or even considerable success. The essential point in this matter is to send out as few detachments as possible.”¹

Importance of the subject.

Detachments are often unavoidable, but as few as possible should be sent out.

Jomini proceeds to classify detachments under four main heads:—

1. Large corps employed at a distance from the main army in order to make diversions. Jackson's operations in the Shenandoah Valley, in 1862, furnish an excellent example of the uses of such a detachment.
2. Large detachments acting within the zone of operations of the main army to cover the line of operations, or other important points, or to carry on a siege. Practically every war furnishes examples of these. Taking the Franco-German War of 1870 as an illustration, we may mention the forces left to observe Bitsche and the other Vosges forts; the detachment detailed to besiege Strasbourg; the army left round Metz after the

Various objects with which detachments are made.

¹ ‘The Art of War,’ by Baron de Jomini, translated by Captains Mendell and Craighill, U.S. Army.

18th August, which may be regarded as a huge detachment in its relation to the advance on Paris. Wellington's detachment at Hal, on the 18th June 1815, was placed to guard his line of communications. The large forces absorbed in guarding our long line of communications in South Africa also fall into this class. The forces left to cover Washington, in 1862, when McClellan moved the main Federal army to the Yorktown peninsula, offer another illustration.

3. "Large detachments made upon the front of operations, in face of the enemy, to act in concert with the main body in some combined operations." For examples of these we need not seek further than Ney's operations at Quatre Bras, on the 16th June 1815, and the operations of Grouchy on the two following days.
4. "Small detachments sent to a distance to try the effect of surprise upon isolated points, whose capture may have an important bearing upon the general operations of the campaign." Under this head fall raids directed against an enemy's communications, to capture important convoys, destroy bridges or railways, or otherwise endeavour to cripple the operations of his main army. The Austrian attempt to capture the bridge at Kehl (p. 168) when Moreau was retreating from Bavaria in 1796 is quoted by Jomini as an example.

Each of these main headings is capable of numerous subdivisions, and many instances of the use of detachments might be quoted, coming partly under one class and partly under another. For example, Jackson was originally sent to the Shenandoah Valley mainly with a view to the protection of it as a valuable recruiting ground and source of supply. The possibilities offered by his position of creating a useful diversion, in connection with the main operations near Richmond, were not fully realised until later.

Complete
classification
of the various
kinds of de-
tachments
is impossible.

Jomini's chapter on "Diversions and Great Detachments," which has been freely quoted from, is one of the most complete, concise, and valuable discussions of the subject which can be found in military literature. Yet the subject is so wide and so complex that it is doubtful whether even his classification is quite satisfactory. We might

treat of the operations of detachments as offensive, such as Jackson's were in 1862, and Ney's in 1815; or as defensive, like the posts on our lines of communication in South Africa. We might attempt to classify detachments as temporary or permanent; as affecting the main operations directly or only indirectly, favourably or adversely; as operating near the main army or at a distance from it; as employed for purely military reasons, or required by political considerations. But no classification which suggests itself would suffice to embrace the whole range of the subject, a full understanding of which can only be acquired by a wide study of military history. In this way only can we learn to judge when a detachment is justifiable, and when it is injudicious and dangerous. But it is to be noted that the "knowledge after the event," which we may acquire from military history, is ineffective for future guidance unless we examine into the matter from the point of view of the commanders who had to act in anticipation of results. We know now that Jackson's operations in 1862 drew M'Dowell's force into the valley, away from the decisive point;—but what guarantee had Lee, at the time, that the Federals, instead of diverting M'Dowell, might not have argued that Jackson's absence from Richmond made their opportunity there,—that nothing Jackson could do would compensate the Confederates for a decisive defeat in front of Richmond,—and that, instead of diverting M'Dowell to meet Jackson, the proper course would be to use him in hastening a decision at Richmond? M'Clellan did so argue, but he was overruled by Mr Lincoln. If the Federal commander had been able to convince the President of the correctness of his views, and if he had acted vigorously, we should now be criticising Lee's folly in weakening himself at the decisive point, by leaving Jackson in the valley, instead of admiring the strategy by which he diverted M'Dowell from M'Clellan.

Military history is the best guide.

In this lies the great difficulty of war, that commanders have to act on a judgment of probabilities, based most generally on vague and often conflicting evidence. They have to commit themselves to dispositions on what is often little more than a guess as to what effect those dispositions may have on the enemy. And, in the case of detachments especially, however correct a general's judgment may be in sending one out, results are very much dependent on the skill and determination of

Success depends much on the commander of the detachment.

the subordinate who commands it. Had Ney advanced a little earlier than he did at Quatre Bras,—had he even recognised that his own operations were secondary, and forborne to recall D'Erlon that evening,—the results of the Waterloo campaign might have been very different. Whether Napoleon or his subordinate was most to blame for the failure of Grouchy's detachment on the 18th June is disputed, but it seems possible that had the operations of the detachment been more suitably directed, Napoleon might have won the battle of Waterloo. Had Jackson not shown such energy and determination in 1862, Lincoln might not have interfered with M'Clellan's plan of campaign. We might even say that had Jackson's men not responded so well to the heavy calls he made on them, his operations would not have had such great results. It is evident that the use of detachments requires deep study not only by prospective generals-in-chief, but by those lower leaders who may be charged with the conduct of detached operations; and it is to be remembered that the forces employed on detached duties may often be so small that very junior officers may find themselves in command of them, and may have it in their power to exercise great influence on the main decision.

Considerations justifying the use of detachments.

The fundamental principle of success in war being superior strength on the decisive battlefields, the first question a commander should ask himself before deciding to send out a detachment is—“*How will it be likely to affect my relative strength at the decisive point and time?*” Unless its effect is likely to be favourable in this respect it may be laid down as a general principle that the detachment would be injudicious.

Detachments may exercise a directly favourable effect at the decisive point by drawing off superior forces, as Jackson drew off M'Dowell; or by preventing separated hostile forces from effecting a junction, as Ney prevented Wellington from marching to Blucher's help on the 16th June. They may exercise an indirect effect by guarding important convoys, or by securing the line of communications on which an army depends for its supplies, ammunition, or reinforcements.

Diversions to induce separation.

When the aim is to draw superior hostile forces from the decisive point—in more technical language “to create a diversion”—deep consideration and great judgment are required to estimate the probabilities of success. To judge of the probable effect of the proposed operations on the opposing general an accurate estimate of his intelligence and

character is necessary, as well as an insight into his probable view of the broad situation. Some point must be threatened whose safety he is likely to consider of urgent importance; or he may be influenced (or controlled) by alarming the government he serves, as was the case in 1862. The probability of *superior* hostile forces being diverted must be weighed,—it will generally be possible that the enemy, instead of acting as we desire, may reply to us by “diverting” our detachment with a still smaller force. The greater the importance of the point threatened, and the more vigorously the detachment acts, the less danger will there be of such a result. The hostile force diverted must not only be *superior*, but its absence from the decisive point must be ensured *for a sufficient time to enable us to complete the decision there*. Waterloo is the most striking example of the results of failure in this respect. To calculate probabilities of this sort a commander must be able to estimate with considerable accuracy not only where the decisive point will be, but when the decision there will be reached. In weighing these matters the possibility of being able to withdraw the detachment to the decisive point, in time to act there, must be considered. If this can be done the risk in sending it out is minimised, and its value may be doubled if it can (as Jackson did in 1862) not only draw off hostile forces, but then, leaving these out of reach, join the main army in time to assist in the main decision. This possibility is affected by railways and telegraphs, and by command of the sea which may often afford such opportunities.

The problem of opposing a junction of forces already separated differs in some respects from that of inducing separation. In the latter case offensive action is usually necessary, whereas in the former case manœuvres and defensive action are generally more suitable. Operations undertaken to induce separation are based altogether on probabilities; those undertaken to oppose a junction have some certainty to work on—the separation exists, it is only necessary to prolong it. Before employing a detachment for the purpose, however, it is necessary to consider whether the enemy probably intends to effect a junction, and whether it is possible for him to effect it in time; if not there is no need for a detachment.

Operations to prevent a junction of forces already separated.

During the recent operations in the Liao-Tung peninsula, the mere

fear of an attempt on Vladivostock, combined with its distance from the zone of operations, sufficed to induce the Russians to maintain a force there. It was therefore unnecessary for the Japanese to employ a detachment to threaten it. Under the circumstances it would have been a mere waste of strength to do so.

Operations
against an
enemy's com-
munications.
Need for
careful
timing.

Small offensive detachments employed against an enemy's communications will probably ensure his using up troops in guarding them, or the mere possibility of danger to his communications may suffice. The timing of such raids is important. If made just before a battle they may draw off hostile troops, who cannot afterwards return to the front in time for the fight, or they may delay the arrival of reinforcements, or of convoys, urgently required at the front. If made at other times any damage done can be repaired, or troops drawn off may be recalled in time, and the raid may have no effect on the main decision. Mischensko's raid, made some time before the battle of Mukden, had no effect on the issue of that battle; whereas a Japanese raid on the Russian line of communications, which was better timed, resulted in a considerable Russian force being diverted from the battle.

Use of forces
unable to
reach the de-
cisive point
in time.

Occasions sometimes arise when a commander has at his disposal a force which, owing to distance, want of transport, or other causes, cannot possibly be drawn to the decisive point in time. In such cases there is no option but to endeavour to utilise this force in some detached operations within its reach. In 1815 Napoleon thus used the garrisons of the fortresses near the Belgian frontier, west of his line of advance, in a demonstration designed to delay Wellington's concentration, by playing on his anxiety for his line of communications with Ostend.

Operations
against an
enemy's line
of retreat.

Detachments are sometimes sent out with a view to cutting off an enemy's retreat *in anticipation* of his defeat. Of these it may be said that they are only justified when relative superiority is so great that victory at the decisive point, without the aid of the detachment, is practically a certainty; and, further, when the superiority is so great that the detachment can be given a strength proportionate to the object for which it is detailed.

Injudicious
detachments.

In thus considering the various circumstances under which detachments may be employed with advantage, we learn, at the same time, how to judge when their use would be injudicious. In studying how we

may beguile the enemy into separation of his forces we learn to beware of similar wiles aimed against us. The great point to be kept in view is superiority at the decisive place and time. A detachment which does not directly, or indirectly, assist us towards that end is always a disadvantage, and should be avoided. If circumstances beyond our control necessitate separation we must endeavour to avoid risking a decision against superior forces while the separation lasts. So important is this question of detachments that in deciding on a plan of campaign preference should be given—other things being equal—to that plan which necessitates the fewest doubtful detachments; and in considering this the political interests likely to be affected are of especial importance. Popular clamour and ignorance of the principles of strategy on the part of a government have often forced commanders to detach, much against their own will and judgment. After M'Clellan's experience of this in 1862, his successors in command of the Federals found it wiser to choose a line of advance which directly covered Washington, despite the natural difficulties of the country to be traversed.

A plan of campaign which necessitates many detachments should be avoided.

As Jomini says, "The essential point is to send out as few detachments as possible." It is also essential that the strength of every detachment sent out should not include a man, horse, or gun more than is necessary for its purpose. At the same time, if the strength necessary be underestimated failure is likely to result. To form a correct estimate of the proper strength for a detachment is a very difficult problem. When the object is to occupy and delay one part of the enemy's forces while another part is being defeated,—the strength of the force to be delayed,—its distance from the decisive point,—the nature of the intervening country,—the time necessary to complete the defeat of the force against which a decision is to be sought,—the possibility of that force avoiding a decision,—the skill and character of the commander of the detachment and of his opponent,—are all factors which have to be considered.

Strength of detachments.

The strength of a detachment intended to induce separation is also governed by many of these considerations. In addition, the possibility of being able to deceive the enemy as to its strength, and of being able to quickly withdraw or reinforce it, affect the question. One of the reasons why Jackson was so successful in alarming Lincoln in 1862 was that he could be quickly reinforced by means of the

railway connecting him with Lee, and the boldness of his action fostered a belief that reinforcements had actually been sent to him. When a detachment is closely connected with its main body, any error in the estimate of its strength can be quickly remedied.

Direction of
detached
operations.

Even after all these preliminaries have been settled, and after a suitable commander for the detachment has been chosen, there is still need for great judgment in deciding on the best line of operations to adopt. An error in this respect was a main cause of Grouchy's failure in 1815. As Jomini says, "The inconveniences necessarily attending them [detachments] may be made as few as practicable, by giving judicious and carefully prepared instructions to their commanders."

Duties of the
commander
of a detach-
ment.

The commander of a detachment has often a very difficult task to perform. To carry out his task satisfactorily he must have a thorough knowledge of the broad situation and of the plans of his general-in-chief. He must constantly remember that success at the decisive point is everything—that his every act must be directed towards, and subordinated to, that end. He must strive to gain the ends in view without exposing his detachment to defeat or unnecessary loss, but when the end cannot be otherwise gained he must not hesitate to fight, even in the face of certain defeat. Finally, he must rejoin his main body the moment his absence from it can be of no further use to it.

Jackson's oft-quoted operations in 1862 are a model for the guidance of commanders of detached forces. There is much to be learnt from Ney's operations at Quatre Bras, where his "*ensemble* of operations" with the main army was perfect, but was not made the most of. Grouchy's failure points many lessons. The ill-judged Russian stand against Kuroki on the Yalu has already been mentioned in a previous chapter. The want of skill shown by Olm Gallas, and by other detached Austrian generals, in 1866 was one of the causes of Benedek's final defeat, though the blame rests even more on Benedek than on his subordinates, owing to his instructions to them being quite unsuited to the circumstances. From these and a hundred other instances recorded in history, the proper method of conducting detached operations may be learnt, and there is no operation of war offering greater opportunities to subordinate leaders of affecting the results of a campaign.

CHAPTER III.

NOTES ON THE STUDY OF TACTICS.

IN previous editions of this work considerable space was devoted to the subject of tactics, which is not the least important of the two great branches of the operations of war. For reasons given in the preface to this edition it has been decided to omit the original tactical portion of the work; but it is hoped that the following notes may be of some help in the study of the numerous books which deal with tactics in detail.

It is commonly asserted that, while the principles of strategy are fixed, tactics are constantly changing. This assertion is often accepted too literally. It is true that new inventions have necessitated a perpetual development in tactical methods; but history shows clearly that all successful tactical methods have been based on great fundamental principles, which are as changeless as the human nature on which they depend. The object aimed at in the following notes is to outline a few of these fundamental principles, and to give some idea of the connection between them and the various methods of applying them which have been successfully adopted at different periods.

Tactical methods are based on fundamental principles which do not change.

The subject is far too vast to be dealt with thoroughly in a short space, and the object of this chapter is limited to suggesting a line of thought which it is hoped and believed the student of war may find it profitable to follow out further for himself.

We frequently find tactics and strategy treated as separate subjects. This is difficult to avoid, but it is most necessary to realise that in practice the two cannot be divorced. The interdependence between them must constantly be borne in mind.

Interdependence of strategy and tactics.

The following extracts from Clausewitz establish the true relation-

ship between strategy and tactics; and they make it clear that the two must be inseparable.

"Tactics is the theory of the use of military forces in combat. Strategy is the theory of the use of combats for the object of the war." "In strategy there is no victory. On the one hand the strategic success is the successful preparation of the tactical victory. On the other hand, strategic success lies in the making use of the victory gained." "By the strategic plan is settled when, where, and with what forces a battle is to be delivered." Then "strategy must go with the army to the field in order to arrange particulars on the spot, and to make the modifications in the general plan which incessantly become necessary in war. Strategy can, therefore, never take its hand from the work for a moment." But "only great tactical successes can lead to great strategical ones."

In short, strategy must be ever striving for tactical success; tactics must ever keep the strategical situation in mind, and must constantly aim at creating fresh strategical opportunities. Tactics without strategy resembles a man without legs. Strategy without tactics is like a man without arms.

Strategy on
the battlefield.

It may be said that strategy not only settles "when, where, and with what forces a battle is to be delivered," but that it must be consulted as to the object with which the battle is to be fought. The battle of Kernstown shows clearly that strategy may have uses even for a tactical defeat. In 1870 the tactically indecisive and risky battles of Colombey—Nouilly and Vionville—Mars la Tour had *strategical* results of most far-reaching importance. But before a commander enters on a doubtful battle, he must first consider whether the strategical situation demands one. This is especially so in the case of detached forces. The object of strategy is to lead up to success in *decisive* battles. The action of detachments must be ruled by that object. When a detachment meets the enemy its commander must consider whether the broad strategical situation demands a Vionville or a Kernstown; or whether he should manœuvre instead of fighting, as the Russians should have done on the Yalu. A commander who cannot look beyond the local situation is not competent to command a detachment, however small.

At the decisive point, also, strategy must be consulted as to whether battle should be engaged at once, or whether delay might bring about a more favourable opportunity. Then strategy must be consulted on the actual plan of battle. It must be asked whether the situation permits of slow and methodical tactical methods, or whether a decision must be forced on as rapidly as possible;—whether the turning of one flank, or the other, would offer the most decisive results?

Although it may be right, in very exceptional cases, for a *detachment* to fight even in the face of almost certain defeat, a defeat at the decisive point is a very different matter. There, the first necessity is tactical success, and no considerations should induce a commander to attempt more than is justified by his relative strength. Strategy has no uses for defeats at the decisive point. A great preponderance of force may justify a commander in making his main attack on the enemy's strongest flank, in preference to the other, if greater strategical results may thereby be gained; but without such preponderance of force he should decide in favour of whatever plan seems to offer the best chance of tactical success. There is little strategical gain in merely forcing an enemy back along his proper line of retreat, but there is more profit in that than in losing the battle in a vain attempt to drive him off it.

It must be remembered, however, that—especially against a weak commander—the best chance of tactical success may lie in aiming a blow in the most vital strategical direction. The enemy's determination may thus be more easily shaken. At the battle of Liao-Yang the movement of a small detachment from Pen-hsi-hu, towards the Russian line of retreat, seems to have had an effect on the results of the battle altogether out of proportion to its size.

Every small tactical success tends to disturb the balance of *moral* Influence of minor tactical successes. to the advantage of the victor; and an accumulation of small tactical successes often paves the way to a final great one. Thus, before the Prussians and Austrians met in the final struggle at Königgratz almost every corps in the Austrian army had already suffered defeat in the comparatively small previous encounters. Before the battle of Liao-Yang a considerable proportion of the Russian army had already been defeated piecemeal. These minor victories, however, are in themselves inde-

cisive—they are no compensation for defeat in a decisive battle. A detached subordinate commander who seeks after a local success, *at the risk of causing the loss of a great battle elsewhere*, shows either a lamentable want of strategical skill, or a selfishness for which even disgrace is scarcely an adequate punishment. Ney's recall of D'Erlon's corps in 1815 is a case in point.

Duration of
battles in
relation to
strategy.

In the recent war in Manchuria the duration of some of the battles was extraordinarily long, and the fact is often taken as an indication, if not a proof, that this long duration is a necessary result of modern conditions, and must be expected in future. The importance of this question has been alluded to in a previous chapter. If battles are to last for days, or perhaps weeks, instead of hours,—and if their probable duration cannot be estimated within a day, or several days,—such strategical combinations as that arranged by Napoleon on the 16th June 1815 will no longer have a chance of success. To hold off part of an enemy's forces for a few hours, while another part is being defeated, is quite a different problem to holding it off for several days. And if the time required to complete a victory cannot be estimated within a margin of days, attempts to defeat an enemy in detail will be more likely to lead to a Waterloo than to a Ligny.

Before we can definitely accept such a theory, however, the first point to determine is whether this deduction made from the Manchurian war is justified. It is based on the four great battles from Liao-Yang to Mukden. In the smaller battles which preceded, in which the forces engaged sometimes numbered from 60,000 to 100,000 men, a decision was generally reached in a few hours from the time the attack really began. Though some of these battles apparently ran into a second day, it appears that this was only so when the work of the first day consisted of mere preliminaries, which might have been dispensed with if time had pressed; or when the Japanese object was merely to keep the Russians in play while a turning movement developed, as there is strong reason to suppose they hoped to do at Ta-shih-chao, for instance.

The long duration of the four great battles is beyond dispute; but were modern conditions the cause of it—or was it a result of purely local conditions?

The general *strategical* conditions in Manchuria did not call for

any violent haste, on the part of the Japanese, in forcing on a decision, north of the Liao Ho, after the junction of their forces at Liao-Yang had been effected. To realise this, compare the strategical conditions in the Waterloo campaign when, on the 16th June, it was necessary for Napoleon to defeat Blucher before Wellington could interfere; and again, on the 18th June, when it was a question of hours whether Wellington could hold out until Blucher arrived. Moreover, in the four great battles in Manchuria, the Japanese relative numbers were inadequate for the delivery of any great decisive stroke calculated to carry all before it with the least possible delay. It is also to be noted that, in Manchuria, manœuvres were cramped by the difficulties of the ground, between the mountains on one hand and the neutral frontier on the other; that the positions were so strongly entrenched as to render the general conditions almost of the nature of fortress warfare; and that the strength of these entrenchments led to abnormal extension of fronts. Given similar conditions in the future, we should no doubt see somewhat similar results. But a recurrence of such conditions, at any rate in Europe, seems most unlikely—except, perhaps, on a permanently fortified frontier. Where there is room for manœuvre, positions must be hastily occupied as need arises,—their exact locality cannot be fixed beforehand,—and time will not permit of the creation of such fortifications as the Russians made. With less elaborate fortifications fronts cannot be so extended without serious risk of being broken. And with less extended fronts the turning and flanking movements, on which the modern attack almost invariably relies, will not have so far to go, or require so long to develop.

Causes affecting the duration of battles.

These very extended fronts are not new in war. Wellington, for example, under peculiar conditions, held an immense front at Torres Vedras. But we do not argue from it that he should have taken up a forty-mile front at Waterloo; and neither should we argue that because wide fronts were considered suitable to the conditions in Manchuria, they are equally suitable under all circumstances in modern war. No doubt fronts will be much more extended than formerly, in proportion to numbers,—but not to the very exaggerated extent that they were in Manchuria.

Another point which affected the duration of the great battles in

Manchuria was the passive nature of the Russian defence. They never attempted a decisive counter-attack on a great scale, with the result that the Japanese were left almost free to carry out their tactical plans as they liked, and in their own time. Human nature in battle remains a constant factor, and its powers of endurance are limited. The more highly these are tried—the more energetically a battle is fought on both sides—the sooner will one or other give way. The Japanese certainly displayed great endurance; but if we consider what might have happened, at Liao-Yang for example, if the Russians had launched a really vigorous counter-attack in great strength, it seems evident that a decision, one way or the other, would have been forced on much sooner.

In addition to all these special reasons for the long duration of the battles in Manchuria, we must also remember that the numbers engaged were very great,—partly as a consequence of special conditions which compressed the whole of the forces on both sides into a comparatively narrow space,—and the size of the forces engaged affects the duration of battles.

Of this matter Clausewitz wrote, from the experiences of a hundred years ago: "The duration of a combat is necessarily bound up with its essential relations. These relations are absolute magnitude of force, relation of force and of the different arms mutually, and nature of the country. 20,000 men do not wear themselves out upon one another as quickly as 2000: we cannot resist an enemy double or three times our strength as long as one of the same strength. . . . The resistance of an ordinary division of 8000 to 10,000 men of all arms, even opposed to an enemy considerably superior in numbers, will last several hours. If the advantages of country are not too preponderating, and if the enemy is only a little, or not at all, superior in numbers, the combat will last half a day. A corps of three or four divisions will prolong it to double that time; an army of 80,000 or 100,000 men to three or four times as long."

Long duration
was not un-
known in
former wars.

Battles like Leipsic and Gettysburg lasted three days, and there seems very slender evidence to justify a belief that if fought under modern conditions they would have lasted longer

In the absence of more convincing proof, it would seem that a general will not be wise to base his strategical plans on the belief that battles, under ordinary conditions, between armies of 50,000 to

100,000 men, will certainly not be decided within twenty-four hours, when it is of serious importance to either army to hasten a decision. Nor should he calculate on a battle between even very large armies, under normal conditions, lasting more than two or three days, when it is manifestly to the interest of either army to force a decision with the least possible delay. Ground, absolute magnitude of force, relative strength of the opposing forces, and the strategical situation, must all be taken into account in forming an estimate of the probable duration of a battle.

It is not only on this question of the duration of battles that we should exercise caution in drawing conclusions. There is a natural tendency in every age to consider the lessons of the past as out of date, and to take the most recent experience as the only guide to follow, without pausing to weigh the special conditions which may have exercised an influence. Unless this tendency to rush to conclusions is tempered by deep reflection and study, it is likely to lead us astray.

Hasty conclusions, based on recent experience, are dangerous.

A study of the development of tactics is usually prescribed as part of the course of modern military education, and the true object of such study is perhaps often not realised. Coupling it with the theory that tactics are constantly changing, the student frequently searches the records of the past to ascertain *what has been altered*, and finds the study of little interest or profit. If he devotes himself to finding out what has *not* been altered,—to noting *what are the principles that have stood the test of time*,—he will find the interest and the profit to be derived are vastly increased; and he will find the study an effective corrective of any tendency to jump too hastily to conclusions. On this subject Pratt, in his 'Précis of Modern Tactics,' writes as follows: "It is quite true that the introduction of improved arms has produced very considerable modifications in the method of fighting; but these modifications are not so much changes, as the growth and development of principles that have been known for hundreds of years. And it is a most dangerous thing to ignore all experience obtained prior to the introduction of improved arms, for it is only by a careful study of the development of tactics that the true direction in which improvement is possible can be determined."

Lessons to be learned by studying past history.

Every war has its special local conditions; and deductions hurriedly

drawn, without due allowance for these conditions, are generally exaggerated, if not altogether wrong. In one campaign cavalry effects little,—perhaps through bad handling, or unsuitable ground. Critics hasten to assure us that, under modern conditions, cavalry can no longer find opportunities on the battlefield. The mobility of the mounted Boer on the boundless South African veldt gave him many advantages over our infantry. We immediately found critics ready to assert that future armies must consist of mounted men. They did not pause to consider that the infantry never found itself unwelcome to the other arms on the South African *battlefields*, and that “only great tactical successes can lead to great strategical ones.” The success of one campaign is ascribed to the rifle, of the next to the gun. The abolition of the bayonet, as a useless encumbrance, is urged at one time,—a subsequent experience leads to recommendations to lengthen it. At one time every man must carry a spade, then the spade is discredited, then it comes in again.

And so we go on; and so, history tells us, our forefathers went on a hundred, and a thousand, years ago. And in the midst of all these bewildering changes of opinion there is only one reliable guide, and that is history. From it we may learn not only the primary factors which have always been the foundation of success, but “the true direction in which improvement can be determined.”

Influence of
moral factors.

What are these primary factors? First among them are the moral attributes. History proves to the hilt that in all ages the moral has been to the physical as three to one. *Courage, energy, determination, perseverance, endurance, the unselfishness and the discipline that make combination possible*,—these are the primary causes of all great success, and in turning our thoughts to new guns or rifles or bayonets we too often forget the fact. An army imbued with these qualities, and directed with determination and reasonable intelligence, always has won—and always will—against opponents not possessing them, even if they be better armed and far more numerous.

But amongst civilised nations this truth is still so far recognised—though it often seems that too much civilisation tends towards forgetfulness of it—that there is but little difference between their armies in this respect. We must seek for other factors that have turned the

scale when the *moral* of opposing armies has been approximately equal at the outset.

The search brings us first to the commander of the army, and we find that his character has always weighed even more than his skill. Above all things he must have energy, perseverance, and determination. He must have courage, moral and physical. Boldness is a valuable quality, and "boldness becomes of rarer occurrence the higher we ascend the scale of rank."¹ To guide these qualifications he requires a cool well-balanced intelligence; a knowledge of war, even if only acquired from books, as Napoleon's knowledge chiefly was in his first command; and a clear understanding of the object in view. To this list we might add many other qualifications that are desirable—such as a knowledge of men, and of how to excite their enthusiasm and to call forth their utmost endeavours; and a high sense of duty to the State. It may also be said that unless the State displays a sense of its duty to its general his best efforts may be thwarted.

Now if we suppose that we have in the field an army of good moral temper and adequate size, commanded by an able general—and that this army is opposed by another which is more or less equal to it in all these respects,—what further qualifications must we look to, to turn the scale on the battlefield? We may note in passing that such approximate equality is only found to a limited degree in history. There is practically always some difference arising from more careful preparation for war,—better statesmanship—superior strategy—or some of the innumerable other causes that affect results in war. But setting this aside we find that, next to the indispensable factors already mentioned, mobility, combination, and fire-power have always exercised most influence. Take what great commander we will, and we find the most convincing evidence that he developed these to the utmost, and that they have always lain at the root of the more material causes of success. Superior mobility alone enabled Frederick the Great to move "like the panther round an ox," so as to place his army across the enemy's flank. The discipline of his troops enabled him to apply the principles of combination. And at the critical moment, before the

¹ Clausewitz.

bayonet charge, the rapidity of fire of the Prussian infantry was remarkable for those days. All three arms played their full part in Frederick's battles according to their respective powers.

Combination, mobility, and fire-power were developed still further under Napoleon.

Wellington's linear formations enabled him to develop the fire-power of his infantry to the utmost; and that he did not sacrifice mobility in doing so is shown especially clearly by the rapidity of his great counter-attack at Salamanca.

In short, whether we go back to the wars of Gustavus Adolphus, or come down to the most recent times, we find the influence of these factors well established. We find that it was in some further development of them that great commanders chiefly sought to gain an advantage. And we learn that it is necessary to beware of increasing one of these factors at the expense of the others. A development of mobility often demands a sacrifice of fire-power, and *vice versa*. When this is so, a very careful balancing of advantages and disadvantages is called for before the development is accepted.

Power of
manceuvre.

Mobility is spoken of here in its tactical sense,—meaning rapidity of manœuvres on the battlefield, to acquire the power of which frequent peace practice in the handling of masses of troops is essential. There is a marked tendency in the present day to carry the principle of "slow and sure" too far, and no doubt the Russo-Japanese war will be quoted in support of it. As a safeguard against this, nothing better can be recommended than a study of the tactical methods of such generals as Lee, Wellington, and Napoleon, followed by a close examination of what would probably have happened had one of these been in command of the Russians on the second day of the battle at Liao-Yang, with a large reserve in hand (as he certainly would have had), when the Japanese centre and left had exhausted themselves against the Russians entrenchments.

Combination.

Combination depends on the efficiency of the chain of control connecting the brain of the commander, through all grades, down to the corporals' squad; on the intelligence of subordinate leaders in grasping and applying the commander's plans; on the discipline which ensures intelligent obedience to the directing will; and on the mobility which

gives rapid effect to that will, and permits of fleeting opportunities being taken advantage of. Every fresh development in the means of rapidly transmitting orders and information permits of an extension of the commander's influence, and makes more perfect combination possible, and over wider areas. Combination in war is the principle the schoolboy understands in his games as "playing together"—only applied on a wider field. It demands the same grasp of the principles of the game, and the same unselfishness in not "playing for one's own hand,"—but multiplied many thousand-fold in proportion to the interests at stake.

The influence of time in battle is always great and sometimes decisive. Time on the battlefield. Even minutes are precious when the decision is hanging in the balance. Some of Napoleon's battles illustrate this particularly vividly. At Wagram it was a race between the failure of his left and the success of his right. At Austerlitz the balance of time between the powers of resistance of his right, and the success of his attack on the Pratzen Heights, was nicely adjusted. A careful study of the time conditions in such battles as these gives an insight into deep causes of tactical success, which is of value not only to those who may command, but to those who desire to help, to the utmost of their ability, even in subordinate positions. Such study not only impresses on us the true value of time;—it shows us the skill with which an army may be disposed, so that a small portion in one part of the field may delay a decision there just long enough to enable the larger portion to complete a decision elsewhere;—it shows how nicely the relative strength of these portions must be adjusted so that the smaller one is just equal to its task, while the greatest possible weight is thrown into the striking force;—it shows how success depends on the endurance of the delaying force, and on the rapidity of the striking force. In short, it illustrates the application of the fundamental tactical principles to definite conditions, both by the commander and by the army.

Not less important than the question of time, and closely connected Reserves. with it, is the question of reserves. "Victory is to him who has the last reserve," said Napoleon,—but like all his maxims this one must not be taken too literally. Even Napoleon could not compress all that there is to be said on such a complicated subject into one sentence.

To grasp the full import of his sayings we must study the deeds by which he illustrated his meaning. No commander ever nursed his reserves with more care than Napoleon. None ever used them more unsparingly when the opportunity for their use arose. None ever laboured more successfully to create the opportunity, or seized it more unhesitatingly when it came.

In studying Napoleon's battles we may take Austerlitz and Ligny as two particularly instructive types. At Austerlitz the allies made a dangerous movement at the beginning of the battle, laying themselves open to a decisive counter-attack, which Napoleon promptly launched. The struggle was very severe while it lasted, but the allies were never given a chance to recover from the effects of the first staggering blow.

At Ligny Napoleon had to create his opportunity. Blucher was a dangerous adversary,—a man of bold character, always ready to strike back; and he had superior numbers. With a comparatively small part of his available force Napoleon set himself to wear down Blucher's power of resistance—to induce him to use up his reserves. Meanwhile Napoleon kept back a large reserve himself. When Blucher's reserves had been drawn in, and, so to speak, his sting drawn, the fresh French reserves were launched in a great decisive stroke. At Austerlitz Napoleon left the first move to the enemy. Their movement was directed, across difficult ground, against what they believed to be his line of communications. Turning the difficulties of the ground to account, he opposed the turning movement with a small delaying force,—he waited just long enough to allow the enemy to commit himself fully,—and then he launched his reserve to first break through the weak allied centre, and then, with all the advantages of ground in its favour, to overwhelm the turning force still struggling in the valley of the Goldbach. Napoleon had to so time this stroke as to ensure its taking full effect before his weak right should be overwhelmed. The reserve could not be long held back, and once launched it had to push very rapidly to a conclusion. Success depended on the balance between the delaying power of the French right and the rapidity of Soult's decisive attack. At Ligny success depended on the power of the French "holding attack"—more logically called by Clausewitz the "preparatory action"—to draw in Blucher's reserves and wear down his powers of resistance,

so that Napoleon might be enabled to use "the last reserve" in a decisive blow before Wellington could interfere.

In studying such battles as these we learn the correct use of delaying action, and of preparatory action; the science of economising reserves at one period, in order to use them unsparingly when the right time comes; and the influence of time. We may realise, too, how much even the ablest commander is dependent on his subordinates. In admiring Napoleon's generalship, we must not lose sight of the fact that great skill and endurance must have been displayed by all ranks in the preparatory attack at Ligny,—which was conducted with such vehemence as to induce Blucher to engage practically the whole of his superior numbers,—and with such endurance in continuing the contest for many hours. If Soult had not been able to launch his attack on the Pratzen Heights, at Austerlitz, so rapidly,—and if time had been lost by him in fire action, instead of seeking to close at once,—the allies might have been able to amend their dispositions and to push *their* attack home. When a rapid decision is necessary fire action is usually too slow, and success will depend on closing with the enemy at once, regardless of loss. The circumstances are very rare in modern war, however, when such an assault can have any prospect of success without *previous* fire preparation.

This question of loss is a very important one. "Victory," said Losses in war. Scharnhorst, "is won by teaching soldiers how to die, not how to avoid dying." The army whose motto is "avoid loss," and the nation which demands of its generals that they shall win battles without losing men, will certainly never succeed against an adversary, of anything like equal strength, who acts on Scharnhorst's maxim. Many people seem to imagine that heavy losses in an army show a want of skill in its commander or in his subordinates. Let them read the campaigns of Napoleon, Wellington, Moltke, Lee, Grant,—or the most recent war of all. They will find that such men, whom they do not hesitate to hold up as models, never quailed before any loss; nor did they win their battles without incurring enormous casualties. It is not our own losses we should count, but the enemy's. However brave men may be they have no burning desire to throw away their lives, and it is surely a needless precaution to urge on them not to do so. The story of Stone-

wall Jackson, who, when a subordinate claimed credit for having fallen back without loss, exclaimed, "Do you call that fighting, sir?" and placed him under arrest, shows a more logical and profitable attitude for a nation to assume than that of tying the hands of their commander by demanding—what history shows to be impossible—victory without loss. A commander has to bear many responsibilities and take many chances. If he has, in addition, to be constantly thinking of every man he loses,—constantly trying to avoid any action which might lead to a long casualty list,—he will certainly never perform great deeds. Generals are not made of iron. They can quite safely be trusted to consider losses, without any urging from home. When—with due allowance for particular circumstances and difficulties, and after full and fair trial—their deeds fail to justify their casualty lists, then it is time enough to call them unskilful, not because they have lost men, but because they have lost them in vain. And so too with subordinate leaders. Courage is so absolutely indispensable to success that bravery must not be criticised even if it sometimes costs unnecessary lives. As Clausewitz says, "Happy the army in which an untimely boldness frequently manifests itself; it is an exuberant growth, showing a rich soil. Even foolhardiness, that is boldness without an object, is not to be despised. . . . It is only when it strikes at the root of obedience, when it treats with contempt the orders of superior authority, that it must be repressed as a dangerous evil, not on its own account but on account of the act of disobedience." Another quotation from Clausewitz is also to the point: "He who uses force unsparingly, without reference to the quantity of bloodshed, must obtain a superiority if his adversary does not act likewise." It may be added that in quoting Clausewitz we are quoting the authority on whom, above all others, Moltke based his action and his teaching—and whose teaching has been passed on to the Japanese army of to-day.

The more deeply military history is read the more clearly will it be realised that great deeds cannot be performed without great losses, however skilful a commander may be. And the point has a double importance. It not only serves as a guide for our own conduct, but it warns us what we may have to expect from a vigorous and determined enemy, whose plans do not admit of spending two days over a tactical problem which may be solved in one with some additional loss.

By all means let us diminish our proportion of losses as compared to the enemy's, so far as may be possible, by skill; but do not permit the skill to develop into any want of vigour and determination. Let us aim at adjusting the proportion by increasing the enemy's loss rather than by counting our own; and, so long as the desired end is finally attained, let us not consider too closely what it has cost. The time for that estimate—so far as any estimate should be made—is before undertaking an enterprise, not after.

A most important subject to consider is the proper relationship between offensive and defensive action in battle. When an army takes up a position it is commonly described as "on the *defensive*." When another army attacks this position its action is termed "*offensive*." These terms are misleading, and some words other than "offensive" and "defensive" are sorely needed to express the situation more clearly, as regards a battle in which both sides equally aim at decisive victory. In such a case, under generals who know their business, neither side has any monopoly of defensive or offensive. Each aims at a final, decisive, offensive stroke. Each uses the power of the defensive, as it may suit him, in preparing the way for that stroke, and in gaining the time necessary for it to take full effect.

The general who commences the attack tries to establish part of his force along the front of the position, with the same object that Napoleon had in engaging Blucher during the first hours of Ligny—viz., to induce the enemy to use up his reserves, and so to "draw his sting." This preparatory *attack* endeavours to secure and fortify strong points within effective range of the position; and it then relies on the power of the *defensive* to enable it to hold these points against counter-attack. In fact its attitude changes, to a considerable extent, from offensive to defensive. The opponent seeks to seize opportunities of turning his original defensive attitude into offensive,—to a limited extent, at this period,—by launching local counter-attacks, the object of which is to induce the enemy to use up reserves in holding the line which he has advanced to: i.e., the same "sting-drawing" process goes on from both sides. Meanwhile the commanders-in-chief endeavour to keep their respective general reserves intact. Finally, one or other sees a favourable opening—expected or unexpected—and launches a decisive attack.

This attack may come from either side first. It may be met by the reserve from the other side; or it may be met by a mere delaying attitude, while the reserve from the other side is thrust in to force a decision elsewhere.

It was thus that such commanders as Wellington and Lee acted in their (misnamed) "defensive" battles. To understand the true relationship and combination of offensive and defensive their battles must be studied. The action of an army which awaits an enemy's first move is so often treated of under the head of "defence of a position," that sight is sometimes lost of the fact that the "defence of the position" is only part of the scheme,—merely the means to the end; which end is to keep the largest possible reserve in hand, and to use it eventually in a *decisive offensive*. The use which the so-called "assailant" makes of *defence* is, similarly, often forgotten through his action being always described as "attack." The respective advantages of attack and defence are open to both sides, and are used by both when skilful generals are opposed to each other.

Surprise is a most potent factor in war. Indeed, as Clausewitz says, "It lies more or less at the foundation of all undertakings, for without it the preponderance at the decisive point is not properly conceivable." And preponderance at the decisive point is what we must always aim at, in tactics as well as in strategy.

The word "surprise" generally conveys the idea of unexpected movement, but that is only part of its meaning. Concealment of dispositions and intentions is a necessary preliminary; and an army awaiting attack may aim at obtaining the advantages of surprise just as much as an army moving to attack. Wellington, in occupying a position, always aimed at surprising his adversary; and his one criticism on Blucher's dispositions at Ligny,—from which he foretold his defeat,—was that he had placed his men in full view of the enemy.

The advantages of surprise must be sought for in the action of small forces, as well as in the action of great ones. Even patrols and individuals must aim at it.

It is clearly as necessary to guard against being surprised as to endeavour to gain a surprise. And precautions against surprise must not be limited to throwing out advanced- and rear-guards and outposts. Good information is the best safeguard, and it is ensured not only by

secret agents and reconnaissance, but by subordinates hastening at all times to communicate to their superiors and to their neighbours the results of their observations. In fact by combination,—the principle which should lead every member of an army to assure himself that he knows what his neighbour is doing and going to do,—that his neighbour has the same knowledge of him,—that both know as much of the enemy as it is possible to discover,—and that each will always do his utmost to help the other, at all times and under all circumstances.

The principles dealt with in this chapter are few in number, and are put forward merely as a foundation to build on; and yet it is probably not too much to say that they lie at the root of all methods that have been successfully employed in war. If we study closely the battles of great commanders we find the truth of this assertion fully established, and we become convinced that no method can be really sound unless it is based on these principles. What, for example, were the main causes of the Japanese success and the Russian failure in the battles in Manchuria? Were they not energy, determination, and combination on one side, and the absence of these qualities—at any rate relatively—on the other side? Whatever the reason may have been, Kuropatkin failed to turn a favourable strategical situation to tactical account before the battle of Liao-Yang. His chances of success at that battle were seriously reduced by many comparatively minor defeats beforehand—which were incurred without good and sufficient strategical cause for risking them, and without due regard to the principle of massing superior strength at the decisive point. Notwithstanding this, victory was almost certainly within his reach at Liao-Yang if he had employed his reserves in accordance with the principles illustrated by Lee and Wellington. At the Shaho, Kuropatkin made his main attack over the most difficult ground, where a rapid decision was impossible. The attack was wanting in energy and determination; and the Russian right was unable to hold out long enough, against the Japanese counter-attack, to give their left a chance of succeeding. Time conditions were not grasped by the Russians in their plan of attack. They were grasped by the Japanese, who combined offensive and defensive with energy and perseverance, and in accordance with sound principle. At Mukden, Kuropatkin's handling of his reserves seems to have been the chief cause of his defeat.

The applica-
tion of prin-
ciples to
methods.

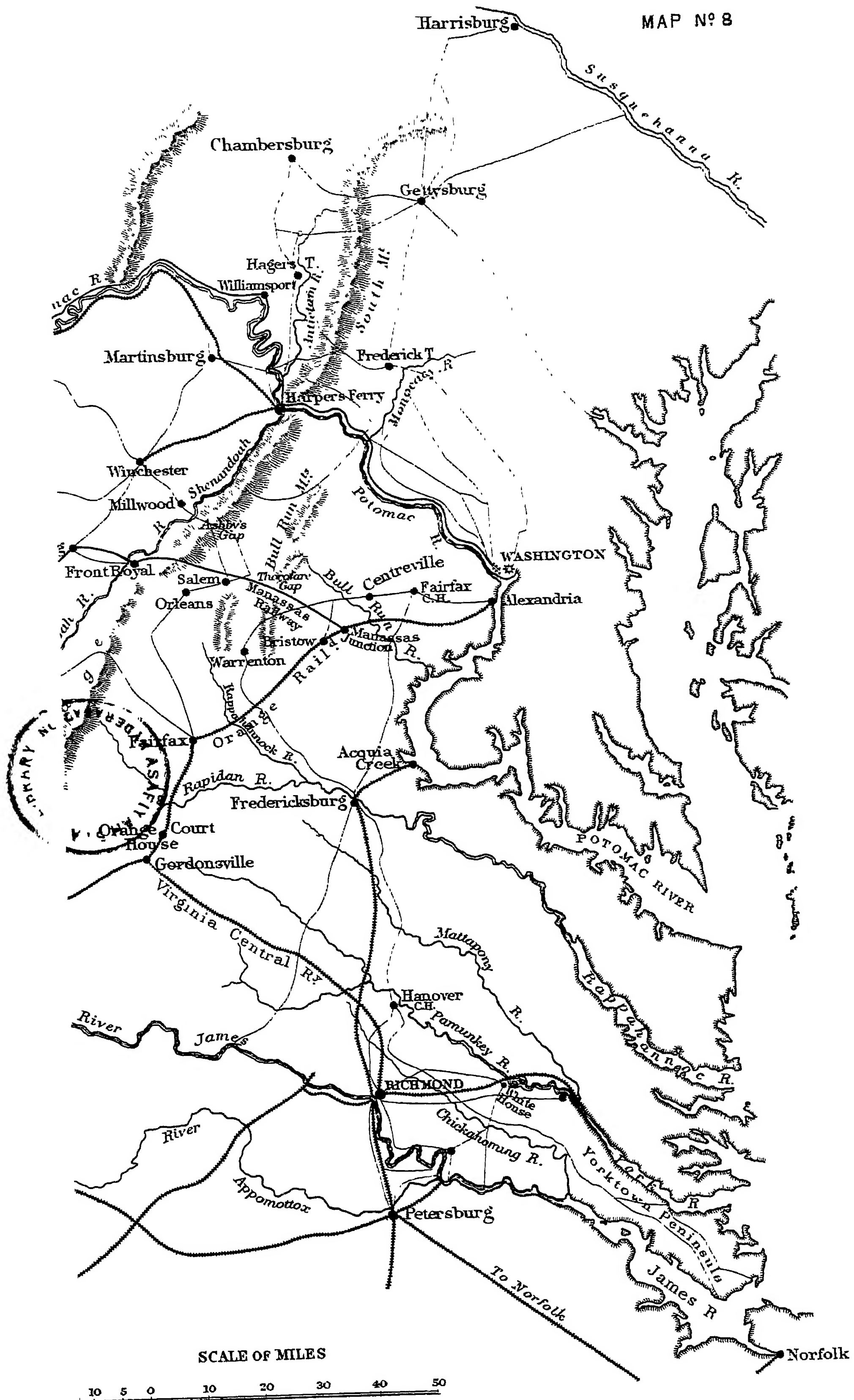
On the Japanese side we may venture to ask whether their apparently very superior mobility and power of manœuvre were always turned to the best possible account in their plans of battle? The Russian defence was so passive (except for purely *local* counter-attacks), and their power of manœuvring was apparently so limited, that we may ask whether the Japanese methods might not have approximated, without undue risk, more closely to those of Frederick the Great rather than to those of the Germans in 1870, who had to deal with an enemy possessing far greater power of manœuvre than the Russians displayed?

When dealing with a mobile enemy, strongly imbued with the offensive spirit, ever watching and ready for an opportunity to hit back, the best chance of victory lies in engaging him seriously along his whole front and endeavouring to wear down his offensive power before committing ourselves to a final effort. Mere demonstration against the front of such an enemy will not suffice to protect us against timely and dangerous counter-offensive. But against a passive or immobile adversary the strength of the frontal attack may often be reduced without undue risk, thereby enabling more weight to be thrown into the decisive attack. There seems good reason to believe that such tactics might have been used successfully against Kuropatkin.

Knowledge of great principles is the best guide to solution of problems in minor tactics.

It is not only for the study of grand tactics that a knowledge of fundamental principles is essential. Such knowledge also helps in the study, and application, of minor tactics. Considered apart from their surroundings, such questions as the best methods of defending woods and villages, or the relative advantages and disadvantages of the group and cordon system of sentries, are perhaps somewhat dry. But when considered in their relation to a plan of battle,—when in defending the village or the wood we remember that a prolongation of its defence for an extra half hour may be a determining cause in the success of a decisive movement elsewhere, or that a judicious system of outposts may save an army from surprise,—then even these local questions become interesting. And the wider our understanding is of the relation of such local problems to the whole, the more successful may we expect to be in solving them.

Modern war calls for an intelligent use of initiative by subordinates, and it is certain that the subordinate who grasps the broad situation most clearly will solve the local situation most intelligently.



CONCLUSION.¹

THE foregoing pages were designed to present an image of modern war; and if they have not failed of their purpose, the reader will be convinced that military science is not mere pedantry, but a reality of vast importance. For, granting the preceding narratives to be mainly correct, and the inferences drawn from them just, skill in arms is the equivalent of thousands of good troops, and may again succeed, as it has so often succeeded before, in gaining, against odds, victories which fix the fate of nations.

Let us imagine that an army in the field is commanded by a general who has fought his way upward from grade to grade, who is valiant, devoted, and practised in war. He is versed in all routine duties, knows the uses and capabilities of the different arms, can choose and occupy a position, make the dispositions for the march of his columns, stubbornly cover a retreat, and save his army, even after a heavy disaster. But not having a mind capable of comprehensive views, or of deep study, he knows nothing of great combinations. Strategy, in the sense of a flexible science, to be adapted to circumstances, is a sealed book to him: the theatre of war is written in a cipher to which he has not the key; he can deal with the accidents of the country, when they present themselves, as something to be immediately attacked or defended; but they suggest no large problems by the solution of which a few marches decide a campaign. Cautious, from not knowing when he may venture to be bold, and rash from ignorance of what may be attempted against him, he spoils his offensive movements by hesitation, defends himself by makeshifts, and only half understands his own blunders when they have ruined his army.

¹ As written by Sir E. Hamley for previous editions.

This is no unfair picture of what has often passed muster in the world as a respectable leader to be intrusted with the fate of hosts. It would do no injustice to some of Napoleon's most celebrated marshals. Such a one will probably acquit himself with credit so long as he is opposed by no qualities superior to his own.¹

But let us imagine that a general of a different stamp enters the field: one who has been taught by study and thought, not merely what has been done in war, and how to conform to respectable precedent (though that may be much), but how to meet new circumstances with new combinations. He has mastered the problems of strategy, and can *read* the theatre of war. He knows not only how to draw from a situation all its inherent advantages, but how to produce the situation. Thus, when a great opportunity arrives he is the less likely to lose it, because it is of his own making; he seizes it unhesitatingly, because he has confidence in his own knowledge of the game; and in darkness and difficulty his step is assured, because he is familiar with the ground he moves on.

When such opponents are matched we have the conditions of startling, brilliant, decisive successes in war. And such were the conditions under which Napoleon met his adversaries. On the one side was respectability, relying on revered traditions. Prussian and Austrian generals were not likely to desert prescribed paths in order to strike out independent modes of military action. But Napoleon was not only a man of vast insight, originality, and power, but had been trained amidst influences adverse to all kinds of prescription. The French Revolution was sceptical of military as of political traditions, and asserted in practice the most subversive doctrines. Napoleon, the child and servant, before he became the master, of the Revolution, was the man to combine with the occasion. From the moment when he first assumed command of a Republican army he began to remodel the system of war. His opponents moved their men on the chess-board according to the rules which they took for immutable principles, and the game went on so long as their antagonists were also guided by them; but when an adversary appeared who only awaited the development of their methodical movements to play his own secret, profound, and decisive game, all equality of chances disappeared, and the only variety in the

¹ Had this character not been sketched before the war of 1866, it might have been taken for a portrait of the unfortunate Austrian commander.

result was in the mode of defeat. In 1796 he concentrated his force against the extended front of the enemy, broke it at Millesimo, and confusion and ruin poured in after him at the gap. At Piacenza he broke out on their line of retreat, and in a moment threw them back beyond the Mincio. Repeatedly, around Mantua, he met and defeated, with the same troops, the desultory dispersed attacks of his adversaries. In that single year, the first in which he commanded an army, he illustrated completely the system of war which deserves to be styled the Napoleonic, since he was, if not its inventor, its greatest exemplar.

In 1800 and 1805 he descended upon the line of retreat of the hostile armies and enclosed them. In 1806 he aimed the same stroke, cut the Prussian armies from the Oder, and threw them on the coast of the North Sea. In 1809 he varied the stroke, for he broke the centre of the enemy's line, and threw back the fragments beyond the capital. And here ended the unbroken flow of his successes; and it ended for two reasons—first, because it was inevitable that his constant adversaries should in time come to catch some of the spirit of his own system, and to meet him with his own weapons. The strokes they dealt against his communications in 1812 and 1813 would probably have been impossible for them ten years before. Beaten into proficiency, the terms they engaged on were no longer so unequal as at first. But, besides that, the Napoleonic system is more successful in single campaigns than in protracted wars. It is wasteful of men; great marches can only be performed, great blows delivered, at a certain cost of material. The immense opportunities for which he laboured existed only for the moment. When he had broken the enemy's front, when he had concentrated superior numbers against them, still, if he neglected to crush them the opportunity would vanish. Hence troops were poured on, effecting with carnage what might have been effected with small loss had time permitted—but time did not permit. The result would be worth a few thousand men—let it be won at the price, since for the enemy the cost would be far greater. When armies are equal in numbers, constant losses of five against three, in thousands or tens of thousands, soon decide a campaign. But when this system is pursued for a series of campaigns, against enemies whose resources are double, it must fail in the end. His own losses crush the victor. Lee, like Napoleon, wins campaigns by making skill compensate

for numbers; but, like Napoleon, he yields at last to the superior resources of enemies who continue to press him to exhaustion.

Such wars *à outrance*, and such inequality of resource in the combatants, are, however, the exception. And the moral of this book is, not that numbers and wealth must prevail, nor that great generals are heaven-born; it is, on the contrary, that the conditions of success are attainable and capable of demonstration; that the preparation of study and thought is essential to skill in war; and that, being thus prepared, a leader, in order to achieve the most notable successes, need not be gifted with inspiration, but only with the more appreciable, though still rare, combination of sound sense, clear insight, and resolution. It is partly for the sake of pointing this moral that the achievements here recounted have been divested of the glow and ornament with which historians naturally embellish, while they confuse, the record of deeds that form the pride of nations, and that these feats of arms have been dealt with in their logical, not their rhetorical aspect. If, of the many Englishmen who possess the qualities necessary for great soldiers, some few should find that this book has in any degree smoothed the path that leads to honour and achievement, the years passed in studying its subjects, and the many months devoted to its composition, will have been sufficiently fruitful of result.

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